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Mr. Don Indermill
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Subject:
First Quarter 2009 Groundwater Monitoring Report
Former CENCO Refinery Property
12345 Lakeland Road
Santa Fe Springs, California
SLIC No. 318, Site ID 2040071

Date:
May 5, 2009

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Our ref:
B0054216.0000.00001

Dear Mr. Indermill:

On behalf of Lakeland Development Company, ARCADIS is pleased to provide you with the First Quarter 2009 Groundwater Monitoring Report for the Former CENCO Refinery Property in Santa Fe Springs, California. Groundwater monitoring activities performed at and in the vicinity of the site between April 20 and 28, 2009 are presented in this document.

Please do not hesitate to contact me should you have any questions or comments regarding the groundwater monitoring report.

Sincerely,

ARCADIS

Paris Hajali, Ph.D., P.E.
Vice President

Imagine the result

ARCADIS

Mr. Indermill
May 5, 2009

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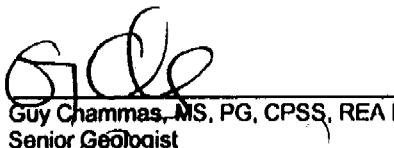
**First Quarter 2009
Groundwater Monitoring Report**

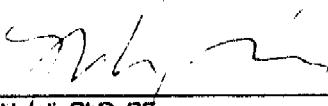
**Former CENCO Refinery
12345 Lakeland Road
Santa Fe Springs, California**

May 1, 2009

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**First Quarter 2009
Groundwater Monitoring
Report**

Former CENCO Refinery
12345 Lakeland Road
Santa Fe Springs, California

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1. Introduction

On behalf of Isola Law Group, LLP, ARCADIS has prepared this *First Quarter 2009 Groundwater Monitoring Report* for CENCO Refining Company for its former refinery located at 12345 Lakeland Road in Santa Fe Springs, California (site; Figure 1).

1.1 Purpose

This report describes the groundwater monitoring activities performed at and in the vicinity of the site between January 12 and 21, 2009, in accordance with California Regional Water Quality Control Board, Los Angeles Region (RWQCB) Cleanup and Abatement Order (CAO) No. 97-118. The objective of the monitoring is to evaluate groundwater quality beneath the site, the adjacent Lakeland, Bloomfield, and Walker properties, and the nearby Metropolitan State Hospital (Hospital) property (Figure 2).

1.2 Site Description and History

The site is approximately 55 acres in size and is bordered to the north by Florence Avenue, to the south by Lakeland Road, and to the east by Bloomfield Avenue (Figure 1). Commercial/light industrial properties border the site to the west. The site was operated as an oil refinery from the 1930s until July 1995. Historical aerial photographs indicate that the western portion of the site may have been used for agricultural purposes from approximately 1928 to 1938. Oil-production-related structures such as ponds and aboveground holding tanks may have also been located onsite during these years. The refinery is not currently in operation; however, many of the structures related to the former refinery operations remain onsite. These structures are scheduled to be removed prior to the redevelopment of the property for commercial/light industrial use (Haley & Aldrich, Inc., 2005).

Previous refining operations included processing crude oil into several grades of fuel including kerosene, leaded gasoline and aviation fuel, unleaded gasoline, jet fuel, high- and low-sulfur diesel, fuel oil, and petroleum coke. Soil and groundwater quality beneath and in proximity to the site have been impacted by past site operations. Soil and groundwater investigations are being conducted pursuant to two CAOs (Nos. 85-17 and 97-118) issued by the RWQCB to Powerine Oil Company (CENCO Refining Company) in 1985 and 1997 (Haley & Aldrich, Inc., 2005).

2. Scope of Work

Quarterly groundwater monitoring has been conducted since August 1986. The last monitoring event was performed by ARCADIS in February 2008 (ARCADIS, 2008). The following subsections summarize the work completed during the first quarter 2009 monitoring event in accordance with the Standard Operating Procedures (SOPs) developed for the site and provided in Appendix A.

2.1 Monitoring Network

The quarterly groundwater monitoring program currently includes 44 wells as listed below, shown on Figure 2, and detailed in Table 1:

- Sixteen onsite groundwater monitoring wells (MW-101, MW-103, MW-104A, MW-105, MW-201, MW-202, MW-204, MW-205, MW-504, W-9, W-10, W-11, W-12, W-17A, W-17B, and W-17C);
- Sixteen offsite, downgradient groundwater monitoring wells located on the former Lakeland property (MW-501A, MW-502, and MW-503B) and the Hospital property (MW-600A, MW-601A, MW-603, MW-604, MW-605, MW-606, MW-607, W-14A, W-14B, W-14C, W-15A, W-15B, and W-15C);
- Seven offsite groundwater monitoring wells located to the southeast on the Walker property (W-1, W-3A, W-4, W-16A, W-16B, W-16C, and EW-1);
- Three offsite groundwater monitoring wells located to the east on the Bloomfield property (MW-106A, MW-107A, and MW-203); and
- Two onsite deep former water production wells (W-7 and W-8).

2.2 Groundwater Gauging

On January 12, 2009, 43 of the 44 wells¹ were gauged to assess groundwater elevations. Five wells (MW-103, MW-202, MW-504, MW-601A, and MW-604) were completely dry, four (MW-101, MW-501A, MW-600A, and MW-607) were technically

¹Well MW-603 was inaccessible on January 12, 2009, and was gauged prior to sampling on January 13, 2009.

dry (i.e. contained only residual water in the end cap/sump), and two (MW-502 and W-11) contained free-phase petroleum hydrocarbon (FPPH).

2.3 Groundwater Purging

The 37 monitoring wells that initially contained groundwater² but not FPPH were purged via the vacuum stinger method according the protocols presented in the SOP in Appendix A. Former onsite production wells W-7 and W-8 were not purged prior to sampling. To ensure that groundwater representative of the geological formation was being sampled, field measurements of water-quality parameters including temperature, pH, turbidity, electrical conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were periodically made prior to sampling.

2.4 Groundwater Sampling and Analysis

Following purging, groundwater samples were collected from 29 wells and analyzed for the following parameters by TestAmerica Analytical Testing Corporation (TestAmerica) of Irvine, California, using the indicated methods, for which it is certified by the California Department of Public Health Environmental Laboratory Accreditation Program (ELAP):

- total petroleum hydrocarbons as gasoline (TPHg) by U.S. Environmental Protection Agency (USEPA) Method 8015M;
- volatile organic compounds (VOCs) with oxygenates by USEPA Method 8260B; and
- hexavalent chromium by USEPA Method 7199.

In addition, groundwater samples from four wells (MW-104A, MW-205, MW-503B, and MW-606) were analyzed for the following parameters by TestAmerica using the indicated methods, for which it is certified by ELAP. The purpose of these analyses was to evaluate potential evidence of biodegradation of petroleum hydrocarbons in groundwater.

²Monitoring wells MW-101, MW-501A, MW-600A, MW-605, and MW-607 dewatered during purging and did not recharge within a reasonable timeframe for sampling, while FPPH was detected in EW-1 and W-3A after purging.

- methane by USEPA Method RSK-175;
- nitrate and sulfate by USEPA Method 300.0;
- alkalinity by Standard Method (SM) 2320B; and
- ferrous iron (Fe^{2+}) by SM 3500-Fe D.

All samples were transported to TestAmerica under proper chain-of-custody (COC) procedures.

2.5 Quality Assurance/Quality Control

ARCADIS collected and/or submitted field duplicates and trip blanks as a quality assurance/quality control measure.

2.5.1 Trip Blanks

One trip blank (provided by TestAmerica) accompanied each daily groundwater sample shipment to evaluate the potential contamination of field samples during storage and transport. Trip blanks were analyzed for VOCs and TPHg only.

2.5.2 Duplicates

Duplicate samples, which assess the precision of the laboratory analyses, were collected from four wells (MW-105, MW-107A, W-1, and W-10). This represents an approximate duplicate frequency of 10% relative to the total number of wells sampled. The duplicates followed the same analytical protocols as the primary samples.

2.5.3 Equipment Blanks

Equipment blanks were not collected because dedicated stingers were used to purge the wells and new disposable bailers were used for sampling, therefore eliminating cross-contamination between wells during the purging and sampling process.

2.6 Free-Phase Petroleum Hydrocarbon Recovery

The Peatwick™ passive hydrocarbon recovery system was installed in the following four network monitoring wells during the first quarter of 2007:

- MW-600A (Hospital property) on February 6;
- EW-1 and W-3A (Walker property) on February 15; and
- MW-504 (site) on February 15.

FPPH has been historically detected in well MW-600A, while wells EW-1, W-3A, and MW-504 were reported to contain sheens in several historical groundwater monitoring events. The absorbing canisters were removed from well MW-504 during the second quarter 2007 event, from well W-3A during the third quarter 2007 event, and from well EW-1 during the fourth quarter 2007 event because sheens were no longer visible in these wells. The passive recovery system absorbent socks were removed from well MW-600A in February 2008 following the last sampling event.

3. Results and Discussion

The results of this quarterly groundwater monitoring event are presented and discussed below. It is important to recognize that the discussion of the results does not distinguish between site- and non-site-related constituents in groundwater.

Well completion data (as adapted from Dan Herlihy Environmental Services, 2006) are provided in Table 1. A summary of groundwater level measurements, depths to water and FPPH, and groundwater elevations is presented in Table 2. Analytical results are summarized in Tables 3 through 6, and Table 7 compares analytical results from this quarter and the first quarter of 2008. Table 8 provides a summary of passive hydrocarbon recovery. Appendix B provides copies of the well measurement and groundwater sampling forms, and laboratory reports and completed COCs are reproduced in Appendix C. Finally, Appendix D tabulates historical analytical data.

3.1 Groundwater Surface Elevations and Gradient

Groundwater surface elevations were calculated for each well by subtracting the water level measurement from the top of casing elevation (Tables 1 and 2). Groundwater elevations were adjusted for wells with FPPH, which was assumed to have a relative density of 0.80, a mean density for various petroleum hydrocarbon mixtures.

Groundwater elevations are shown on Figure 3.

Based on the groundwater level measurements obtained on January 12 and 13, 2009, first-encountered groundwater beneath the site vicinity ranges in elevation from 16.96 to 53.39 feet above mean sea level.³ Groundwater elevations have dropped by an average of approximately 3.6 feet since February 2008 (ARCADIS, 2008), compared to a decrease of approximately 0.85 foot between November 2007 and February 2008.

The average horizontal groundwater gradient is approximately 0.008 foot per foot (ft/ft), as shown in Figure 3. The groundwater flow direction varies in the vicinity of the site from south-southwest at the site itself to almost directly south beneath the Hospital property. These flow directions are relatively consistent with those historically reported in previous investigations.

³excluding wells EW-1 and W-3A, whose construction details are unknown.

3.2 Free-Phase Petroleum Hydrocarbons

As in the previous monitoring event in February 2008 (ARCADIS, 2008), measurable FPPH (light non-aqueous-phase liquid) was detected in well W-11; however, during this monitoring event, FPPH was also detected in well MW-502 (Table 2). FPPH was not observed in monitoring well MW-600A for the second time since July 1999, most likely as a result of passive recovery. For more details on the passive recovery system, refer to Section 3.4 and Table 8. Although FPPH was not detected in wells EW-1 and W-3A during gauging this reporting period, both wells were observed to contain product after purging.

FPPH was historically detected in monitoring wells MW-502 and MW-504 (Haley & Aldrich, Inc., 2004), but of those two wells, FPPH has only recently been detected in MW-502. FPPH likely still exists between these wells as depicted in Figures 4 and 5.

3.3 Groundwater Analysis

Analytical results are summarized in Tables 3 through 6, and laboratory reports and completed COCs are included in Appendix C.

3.3.1 Total Petroleum Hydrocarbons as Gasoline

TPHg was detected in 31 of the 33 samples analyzed (27 of 29 wells sampled) at concentrations ranging from 27 J⁴ micrograms per liter ($\mu\text{g/L}$) in monitoring well W-14A to 20,000 $\mu\text{g/L}$ in monitoring well W-10 (Table 3; Figure 4). The maximum detected TPHg concentration during the February 2008 sampling event was 28,000 $\mu\text{g/L}$ in the sample from monitoring well W-10 (Table 7). TPHg concentrations decreased in 16 of the sampled wells (MW-107A, MW-203, MW-603, W-1, W-4, W-8, W-10, W-14A, W-14C, W-15A, W-15B, W-16A, W-16B, W-17A, W-17B, and W-17C). Samples from monitoring wells MW-104A, MW-105, MW-201, MW-205, MW-503B, W-9, W-12, W-14B, W-15C, and W-16C contained greater TPHg concentrations compared to the last event (ARCADIS, 2008). Groundwater sampled from monitoring well MW-503B exhibited the largest absolute increase in TPHg concentrations, 3,500 $\mu\text{g/L}$ since February 2008. The largest absolute decrease in TPHg concentration was observed in monitoring well W-10, where the concentration dropped from 28,000 to 20,000 $\mu\text{g/L}$ since February 2008.

⁴J flag indicates an estimated concentration below the reporting limit

3.3.2 VOCs and Oxygenates

A summary of VOC and oxygenate analytical results is presented in Table 4, and a comparison of selected VOC and oxygenate data from this monitoring event and the February 2008 monitoring event is presented in Table 7.

3.3.2.1 *Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)*

Benzene was present in samples collected from 20 wells at concentrations ranging from 0.35 J µg/L in well W-7 to 8,100 µg/L in the sample from well W-10 (Figure 5). Samples from 13 wells contained benzene at concentrations greater than the California Maximum Contaminant Level (MCL) in drinking water of 1 µg/L. Relative to the last sampling event in February 2008 (ARCADIS, 2008; Table 7), benzene concentrations declined in 11 wells, namely MW-105, MW-106A, MW-107A, MW-203, W-1, W-4, W-12, W-15A, W-15B, W-16A, and W-16B. On the other hand, an increase in benzene concentration was observed in wells MW-201, MW-205, MW-503B, MW-603, W-7, W-8, W-10, W-14C, W-15C, and W-16C.

Of the other BTEX compounds analyzed, toluene was detected in samples from 8 wells at concentrations ranging from 0.45 J µg/L in W-16C to 73 J µg/L in the sample from W-10 (none of which exceeded the California MCL of 150 µg/L). Ethylbenzene was detected in samples from 9 wells at concentrations ranging from 0.28 J µg/L in W-7 to 440 µg/L in W-10, the latter exceeding the 300 µg/L California MCL. Ethylbenzene was detected at and slightly above its California MCL in the primary and duplicate samples from well W-10. Total xylenes, including the *ortho*, *meta*, and *para* isomers, were detected in samples from 6 wells at concentrations ranging from 1.2 J µg/L in MW-104A to 1,400 µg/L in W-10. All xylene detections were less than the California MCL of 1,750 µg/L.

3.3.2.2 *Methyl tert-butyl Ether (MTBE)*

The oxygenate MTBE was detected in samples from 5 wells at concentrations ranging from 0.84 J µg/L in MW-203 to 190 µg/L in W-15A (Figure 5). The 13 µg/L California MCL for MTBE in drinking water was exceeded in 2 of these wells. Except for an order of magnitude decrease in well W-1, MTBE concentrations do not appear to have significantly changed since the February 2008 sampling event.

3.3.2.3 *Tert-Butyl Alcohol (TBA)*

TBA, another oxygenate and a byproduct of MTBE breakdown, was detected in samples from 19 wells at a maximum concentration of 170 µg/L in W-15A. In general, TBA concentrations in the sampled wells were similar to those observed in February 2008.

3.3.2.4 *Other VOCs*

In addition to the aforementioned compounds, 28 additional VOCs were detected in groundwater during this sampling event. The constituents are as follows, with the frequency of detection (number of wells) shown in parentheses.

<i>cis</i> -1,2-dichloroethene (<i>c</i> -1,2-DCE) (21)	<i>tert</i> -butylbenzene (8)
trichloroethene (TCE) (13)	di-isopropyl ether (8)
isopropylbenzene (14)	tetrachloroethene (PCE) (3)
<i>n</i> -propylbenzene (14)	<i>p</i> -isopropyltoluene (5)
sec-butylbenzene (12)	1,3,5-trimethylbenzene (5)
1,1-dichloroethane (1,1-DCA) (12)	chlorobenzene (3)
<i>trans</i> -1,2-dichloroethene (<i>t</i> -1,2-DCE) (15)	chloroform (2)
vinyl chloride (14)	1,2-dichlorobenzene (1)
naphthalene (6)	trichlorofluoromethane (2)
1,2-dichloroethane (1,2-DCA) (5)	1,4-dichlorobenzene (1)
1,1-dichloroethene (1,1-DCE) (9)	1,2-dichloropropane (1)
1,2,4-trimethylbenzene (6)	chloroethane (2)
<i>n</i> -butylbenzene (6)	chloromethane (1)
2-chlorotoluene (1)	<i>tert</i> -amyl methyl ether (1)

The maximum concentrations generally were for *n*-propylbenzene, naphthalene, 1,2,4-trimethylbenzene, and isopropylbenzene, which were detected up to 230 µg/L. As in the previous monitoring event, PCE and TCE were detected at concentrations exceeding their 5 µg/L California MCL in samples from wells MW-105 and MW-603. Wells W-14B and W-14C also had TCE detections greater than the California MCL (W-14B also exceeded the MCL for PCE). PCE and TCE concentrations exceeding the 5 µg/L California MCL ranged from 8.4 to 74 µg/L and 28 to 84 µg/L, respectively.

3.3.3 Hexavalent Chromium

Hexavalent chromium was detected in the samples from monitoring wells MW-606 (0.0012 J milligram per liter [mg/L]) and W-14B (0.00044 J mg/L). Neither detection exceeded the California MCL of 0.05 mg/L (Table 5).

3.3.4 Distribution of Constituents

3.3.4.1 Potential Offsite Sources of VOCs

Groundwater collected from monitoring well MW-105, located upgradient at the northern boundary of the site, contained the following chlorinated hydrocarbons: 1,1-DCA, 1,2-DCA, 1,1-DCE, c-1,2-DCE, t-1,2-DCE, PCE, TCE, and vinyl chloride. The detection of these contaminants in this upgradient well suggests the presence of offsite, upgradient sources. In addition, PCE and TCE were present above the detection limit mainly in samples from wells located on the west side of the site (MW-105) and the west side of the Hospital property (MW-603 and W-14B).

3.3.4.2 TPHg and VOCs

The highest concentrations of TPHg detected during this sampling event were in the north-central and southwestern portions of the site, extending southeast toward the northern part of the Hospital property (Figures 4 and 5). TPHg was detected at a concentration of 20,000 µg/L in the sample from monitoring well W-10, located in the north-central part of the site. TPHg was detected in the southwestern portion of the site in monitoring well MW-201 at a concentration of 1,400 µg/L. TPHg was detected at the former Lakeland property at a concentration of 6,200 µg/L in the sample from monitoring well MW-503B.

In two of the aforementioned wells, the highest benzene concentrations were also detected: 8,100 µg/L in W-10 and 410 µg/L in MW-503B (Figure 5). Well W-10 also had the highest ethylbenzene (440 µg/L), toluene (73 J µg/L), total xylenes (1,400 µg/L), and naphthalene (230 µg/L) concentrations. The highest MTBE concentrations were observed in wells W-15A and W-15B at 190 and 20 µg/L, respectively.

The footprint of impacted groundwater emanating from the southwestern corner of the site has not changed shape or size substantially since the last groundwater monitoring event in February 2008.

3.3.5 Biodegradation Parameters

Biodegradation of TPHg most commonly occurs by aerobic, nitrate-reducing, ferric iron (Fe^{3+})-reducing, sulfate-reducing, or methanogenic respiration. TPHg and BTEX serve as electron donors for the microbial metabolism in aerobic biodegradation. Electron acceptors include oxygen, nitrate, Fe^{3+} , sulfate, and carbon dioxide.

In general, if sufficient oxygen is present, aerobic biodegradation will occur first. When the DO concentrations fall below approximately 0.5 mg/L (an anoxic environment), denitrification will begin if nitrate is present. After most nitrate has been consumed, Fe^{3+} reduction will begin if Fe^{3+} is present. Fe^{3+} concentrations will decrease, while Fe^{2+} concentrations will increase. After most Fe^{3+} is consumed, sulfate reduction will begin if sulfate is available. After most sulfate has been consumed, methanogenesis, which involves carbon dioxide as an electron acceptor, begins. During methanogenesis, methane concentrations increase (Department of the Navy, 1998).

The results discussed below indicate that biodegradation, whether aerobic or anaerobic, may be occurring in the local environment around the wells that were sampled for biodegradation parameters.

3.3.5.1 *Field Measured*

pH, DO, and ORP data were collected from 27 monitoring wells⁵ using a Horiba U-22 water quality meter (Table 6). The meter was inserted into a grab water sample collected from a vacuum truck during purging.

- **pH** – This parameter quantifies the acidity or alkalinity of a solution. Results ranged from 6.83 to 8.51, indicating a neutral to slightly alkaline environment that is suitable for the growth of alkalophilic bacteria and microorganisms that thrive at a circumneutral pH.
- **DO** – Oxygen is the preferred electron acceptor in the biodegradation of petroleum hydrocarbons. When aerobic biodegradation occurs, DO concentrations are expected to decline as microorganisms use the electron acceptor during respiration.

⁵the two former production wells W-7 and W-8 were not purged and readings were not collected

DO concentrations ranged from 0.64 to 4.66 mg/L, reflecting an aerobic environment. It is important to note that the vacuum stinger method used to purge the wells may introduce oxygen into the water. Therefore, DO data may overestimate the actual oxygen content. Also note that DO readings from certain wells were subject to error due to a malfunctioning meter (Table 6).

- **ORP** – This parameter is a measure of electron activity, which reflects the oxidizing or reducing nature of the environment. ORP values are generally negative under reducing conditions (gaining electrons) and positive under oxidizing conditions (losing electrons). Anaerobic biodegradation has a tendency to create reducing conditions, resulting in negative ORP readings.

Negative ORP readings were observed in 16 wells (MW-105, MW-107A, MW-201, MW-205, MW-503B, W-1, W-9, W-10, W-12, W-14B, W-14C, W-15A, W-16B, W-16C, W-17B, and W-17C), ranging between -19 and -289 millivolts (mV). The most highly negative ORP values were observed in samples from monitoring wells MW-107A (-289 mV), W-16C (-249 mV), W-16B (-193 mV), W-15A (-175 mV), W-9 (-160 mV), and W-10 (-158 mV). A hydrogen sulfide odor (produced from the reduction of sulfate in groundwater) was detected during purging of wells W-16B and W-16C, providing additional evidence that anaerobic conditions were present. The most highly positive ORP values were observed in samples from monitoring wells MW-104A (160 mV), MW-603 (129 mV), and MW-606 (118 mV). As with DO measurements, ORP measurements can be affected by disturbance and exposure to the atmosphere during sample collection.

3.3.5.2 Laboratory Measured

As explained in Section 2.4, groundwater samples from four wells (MW-104A, MW-205, MW-503B, and MW-606) were analyzed by TestAmerica for methane, nitrate, sulfate, total alkalinity, and Fe^{2+} . These wells were previously selected for the evaluation of biodegradation potential based on their location. Details of the biodegradation study design, including the well selection process, are provided in the *2004 Semi-Annual Groundwater Monitoring Report* (Haley & Aldrich, Inc., 2004).

- **Total Alkalinity** – Total alkalinity results from the presence of hydroxides, carbonates, and bicarbonates. Aerobic biodegradation in groundwater may result in increased alkalinity due to the evolution of carbon dioxide.

Results were similar to those observed in February 2008 and varied between 380 and 700 mg/L. The highest alkalinity concentration was observed in the sample from monitoring well MW-503B, increasing somewhat from 680 mg/L in February 2008. The relatively high alkalinity observed in these wells indicates that the local environment is conducive to methanogenesis and that prior to methanogenesis, aerobic degradation may have occurred. When TPHg is degraded aerobically, carbon dioxide is released into the aqueous environment in the form of carbonates or bicarbonates, raising the alkalinity.

- **Nitrate** – Nitrate may be used as an electron acceptor in anoxic environments where the DO has been depleted. During this biodegradative process, nitrate loses an oxygen atom and is reduced to nitrite in part of a process called denitrification. Decreased concentrations of nitrate in wells containing higher concentrations of hydrocarbons generally indicate the occurrence of denitrification.

Nitrate was detected in samples from two of the four wells (MW-104A and MW-606) at concentrations of 0.42 and 2.9 mg/L, respectively. Thus, geochemical conditions in localized groundwater may be suitable for denitrification.

- **Ferrous Iron** – Fe^{3+} may be used as an electron acceptor during anaerobic degradation of petroleum hydrocarbons when it is reduced to Fe^{2+} . Fe^{2+} was observed in samples from three monitoring wells (0.1 mg/L in MW-104A, 2.0 mg/L in MW-205, and 1.0 mg/L in MW-503B). Fe^{3+} reduction may be occurring in localized groundwater.
- **Sulfate** – Sulfate may also be used as an electron acceptor for anaerobic biodegradation once DO and nitrate are (nearly) exhausted. A drop in sulfate concentrations in wells with high concentrations of petroleum hydrocarbons indicates the occurrence of anaerobic biodegradation.

Sulfate was detected in samples from all four wells at concentrations ranging between 4.4 mg/L in MW-503B and 290 mg/L in MW-205. The concentration in MW-503B decreased from 78 mg/L in February 2008, while the concentrations in the other three wells remained relatively similar to what was observed in the previous sampling events. Localized groundwater may therefore be supportive of sulfate reduction.

- **Methane** – Dissolved methane is a byproduct of methanogenic reducing activity, which is indicative of anaerobic biodegradation. Methane is typically produced

once the electron acceptors oxygen, sulfate, and nitrate have been completely utilized. Therefore, as methane concentrations increase, DO, sulfate, and nitrate concentrations typically decrease.

Methane was detected in three of the four monitoring wells at concentrations ranging from 0.0015 mg/L in the sample collected from MW-104A to 0.16 mg/L in the sample collected from MW-503B. The presence of methane in these wells indicates that methanogenesis may be occurring.

3.3.6 Quality Assurance/Quality Control (QA/QC)

Trip blanks did not contain detectable concentrations of TPHg or VOCs (with the exception of a trace detection of tert-amyl methyl ether in one trip blank), indicating the primary samples were not compromised during storage and transport. Duplicate sample results are provided alongside their parent sample results in Tables 3 through 5. The results show similar concentrations of analytes as in their respective primary samples, as would be expected for an ELAP-certified laboratory.

3.4 Passive Hydrocarbon Recovery

The Peatwick™ passive hydrocarbon recovery system was installed in February 2007 in four groundwater monitoring wells that contained measurable FPPH or sheen in the previous few monitoring rounds: MW-600A located on the Hospital property, EW-1 and W-3A located on the Walker property, and MW-504 located onsite. The passive hydrocarbon recovery system consists of a 5-foot-long, Schedule 20, slotted polyvinyl chloride canister, which holds a sock containing dehydrated peat moss. The canister and sock were suspended from the well cap and submerged within only the upper few inches of groundwater. A sock is placed within the canister for a period of 2 to 4 weeks (depending on hydrocarbon thickness/recovery). The dehydrated peat moss material has a hydrophobic, porous structure that has a high affinity for hydrocarbons. Hydrocarbons are absorbed by the peat moss by capillary action until the sock is saturated. The volume of FPPH recovered using these socks is difficult to estimate, due to the potential for water absorbance in addition to the hydrocarbons. The effectiveness of the passive hydrocarbon recovery system is being monitored by quarterly measurements of the change in FPPH thicknesses.

The peat sock in groundwater monitoring well MW-600A (contained 2.96 feet of FPPH during February 2007 sampling event) was replaced seven times following initial installation and prior to the first quarter 2008 monitoring event as shown in Table 8.

The FPPH thickness in this well was significantly diminished as a result of absorption by the Peatwick™ socks and the canister was removed from monitoring well MW-600A during the February 2008 monitoring event. The passive recovery system has not been present in any wells since February 2008. Table 8 summarizes the passive hydrocarbon recovery results for the site.

4. Summary and Conclusions

Groundwater monitoring was performed at and in the vicinity of the former CENCO refinery in January 2009 as part of an ongoing groundwater monitoring plan intended to evaluate chemical impacts, contaminant sources, and overall groundwater quality. This groundwater monitoring event included gauging water levels in 44 wells and collecting samples from 29 of those wells for analysis of TPHg, VOCs, and hexavalent chromium. Four of the wells were also sampled for analysis of biodegradation parameters including methane, nitrate, sulfate, total alkalinity, Fe^{2+} , pH, DO, and ORP.

4.1 Groundwater Surface Elevations and Gradient

A horizontal groundwater gradient of approximately 0.008 ft/ft was calculated for the recent groundwater monitoring event. This is consistent with historical gradient data for the site. Overall, groundwater levels have dropped by an average of 3.6 feet since the last measurements taken in February 2008 (ARCADIS, 2008). Groundwater flows south-southwesterly near the site and eventually takes a more southerly route beneath the Hospital property.

4.2 Free-Phase Petroleum Hydrocarbons

The number of wells in which FPPH was observed has decreased from six in June 2004, to four in October 2005, to two in February 2006, to one (MW-600A) in November 2007, and one (W-11) in February 2008. Although FPPH was not detected in wells EW-1 and W-3A during gauging this reporting period, both wells were observed to contain product after purging. FPPH was not observed in well MW-600A in February 2008, decreasing from 2.96 feet in thickness since February 2007 due to the implementation of the passive recovery system. FPPH historically observed in well MW-600A may have originated from an onsite source, as proposed by Haley & Aldrich, Inc. (2004). Monitoring well MW-600A went dry just after purging began during the January 2009 sampling event. A thin FPPH layer was detected in well W-11 during the January 2009 sampling event for the second time since its installation in August 2006. A very thin layer of FPPH was detected in well MW-502, and it is still expected that FPPH exists between MW-502 and MW-504 based on historical observations. The thicknesses detected within these wells does not necessarily reflect FPPH thickness in the surrounding aquifer as fluctuations in water levels and permeability factors can influence FPPH accumulation in monitoring wells.

The Peatwick™ passive hydrocarbon recovery system was installed in February 2007 in four groundwater monitoring wells that have historically contained measurable FPPH or sheen: MW-600A located on the Hospital property, EW-1 and W-3A located on the former Walker property, and MW-504 located onsite. The peat sock in groundwater monitoring well MW-600A was replaced seven times following initial installation and prior to the first quarter 2008 monitoring event (and removed in February 2008). As a result, the FPPH thickness in this well has become undetectable. A sheen and/or FPPH were observed in monitoring wells EW-1, MW-502, MW-503B, W-3A, and W-11 during this monitoring event.

4.3 Groundwater Quality

4.3.1 TPHg and VOCs

Current groundwater quality is generally consistent with historical observations and analyses. TPHg concentrations decreased in 16 of the sampled wells (MW-107A, MW-203, MW-603, W-1, W-4, W-8, W-10, W-14A, W-14C, W-15A, W-15B, W-16A, W-16B, W-17A, W-17B, and W-17C). An increase in TPHg concentrations was observed in samples from wells MW-104A, MW-105, MW-201, MW-205, MW-503B, W-9, W-12, W-14B, W-15C, and W-16C. At the same time, benzene concentrations decreased in samples from wells MW-105, MW-106A, MW-107A, MW-203, W-1, W-4, W-12, W-15A, W-15B, W-16A, and W-16B, but increased in samples from wells MW-201, MW-205, MW-503B, MW-603, W-7, W-8, W-10, W-14C, W-15C, and W-16C. Samples from 13 wells contained benzene at concentrations greater than the California MCL.

The footprint of impacted groundwater emanating from the southwestern corner of the site has not changed substantially in shape or size since the last groundwater monitoring event in February 2008. Due to increasing concentrations of benzene in well MW-205, the plume in the western central area of the site has expanded slightly. Similar to previous monitoring events in November 2007 and February 2008, an increase in benzene, ethylbenzene, and *meta/para*-xylenes concentrations was observed during this monitoring event in the sample collected from well W-10 in the north-central portion of the site.

4.3.2 Hexavalent Chromium

Hexavalent chromium concentrations were less than the detection limit in samples from all but two wells (MW-606 and W-14B). The detected concentrations were less than the California MCL.

4.4 Biodegradation

Intrinsic biodegradation continues to be viable, in at least some areas of the site and vicinity, based on nitrate, sulfate, Fe^{2+} , methane, alkalinity, and ORP results.

5. References

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ARCADIS

Tables

Table 1^a
Well Completion Data

First Quarter 2009 Groundwater Monitoring Report
Isola Law Group, LLP
Former CENCO Refinery
Santa Fe Springs, California

Well ID	Date	By	Well Installation			Ground Surface (ft)	Elevation (ft msl)	Hole Diameter [in]	Casing Diameter [in]	Screen		Depth (ft)	Completion Data			Elevation (ft)	Total Depth (ft)	Location	Reference				
			Northing	Eastng	TOC					Slop [in]	Length [ft]		Slotted Top [ft]	Bottom [ft]	Casing [ft]	Hole [ft]							
Groundwater Monitoring Wells																							
MW-1	-	-	1,797,483,196	6,543,002,742	146.16	?	-	4	-	-	-	-	-	-	-	-	-	-	-	Walker			
MW-101	8/28/1985	ET	1,798,140,447	6,540,312,476	137.55	135.23	12	4	-	20	69.5	90	70	90	90	95	66	45	45	40	Refinery		
MW-103	8/30/1985	-	1,797,605,532	6,541,738,905	138.74	136.95	12	4	-	20	-	-	79	99	-	99.5	-	58	38	-	37	Refinery	
MW-104	8/24/1985	-	-	-	142.09	-	12	4	-	20	-	-	76.5	96.5	-	99	-	66	46	-	43	Refinery	
MW-104A	-	-	1,798,706,092	6,541,832,011	143.64	141.16	-	4	-	-	-	-	-	-	-	-	-	-	-	Refinery			
MW-105	-	-	1,798,779,263	6,540,307,808	141.03	138.63	-	4	-	-	-	-	-	-	-	-	-	-	-	Refinery			
MW-106	-	-	-	-	-	148.41	-	-	-	-	-	-	-	-	-	-	-	-	42	Bloomfield			
MW-106A	2/20/2006	N&M	-	-	152.5	152.17	8	4	0.020	27	82	110	83	110	110	110	70	42	42	42	Bloomfield		
MW-107	-	-	-	-	-	148.93	-	-	-	-	-	-	-	-	-	-	-	-	41	Bloomfield			
MW-107A	2/20/2006	N&M	-	-	146.7	146.28	8	4	0.020	27	82	110	83	110	110	110	64	38	36	36	Bloomfield		
MW-201	9/1/1985	-	1,797,594,218	6,540,368,835	134.94	132.91	12	4	-	30	66	103	72	102	102	103	67	30	31	30	Refinery		
MW-202	9/23/1985	-	1,797,598,729	6,541,281,787	139.97	127.89	16	4	-	30	58	105	63	93	93	105	70	23	65	35	Refinery		
MW-203	9/13/1985	-	-	-	143.4	143.02	12	4	-	30	84.7	107	77	107	107	119	78	36	66	36	Bloomfield		
MW-204	9/19/1985	-	1,797,878,163	6,541,571,205	142.44	140.14	12	4	-	30	67.5	105	73.3	103.3	103.3	105	73	35	67	37	35	Refinery	
MW-205	9/14/1985	-	1,798,268,467	6,540,646,969	139.71	138.04	12	4	-	30	65.5	103	69.5	99.5	99.5	104.5	73	35	69	39	39	Refinery	
MW-206	8/1/1985	-	-	-	-	129.93	-	4	-	30	62.5	104	71	101	101	104	67	26	59	29	29	Bakeland	
MW-501	8/1/1988	-	-	-	128.70	-	4	-	30	-	-	71	101	-	107	-	-	58	28	-	22	Lakeland	
MW-501A	-	-	1,796,893,386	6,541,349,938	129.98	-	-	4	-	-	-	-	-	-	-	-	-	-	-	35	Lakeland		
MW-502	8/11/1988	-	1,796,894,313	6,541,025,096	130.29	128.30	-	4	-	30	-	-	74	104	-	104	-	-	54	24	24	Lakeland	
MW-503	8/13/1988	-	-	-	-	131.43	-	4	-	30	-	-	80.5	110.5	-	111	-	-	51	21	-	20	Lakeland
MW-503B	-	-	1,797,022,145	6,540,464,160	131.86	129.96	-	4	-	-	-	-	-	-	-	-	-	-	-	21	Lakeland		
MW-504	8/18/1986	-	-	-	-	134.51	-	4	-	50	-	-	68	118	-	118	-	-	67	17	-	17	IT (1986); ARCADIS (2003)
MW-800	8/15/1990	-	-	-	-	120.05	-	4	-	30	-	-	78	108	-	110	-	-	42	12	-	10	MSH
MW-600A	-	-	1,796,508,494	6,540,956,633	123.41	120.34	-	4	-	-	-	-	-	-	-	-	-	-	-	20	MSH		
MW-601	8/17/1990	-	-	-	-	125.03	-	4	-	30	-	-	85	115	-	117	-	-	40	10	-	8	MSH
MW-601A	-	-	1,796,495,311	6,541,208,412	127.08	128.53	-	4	-	-	-	-	-	-	-	-	-	-	-	27	MSH		
MW-602	-	-	1,796,111,080	6,539,746,257	119.86	118.54	-	4	-	-	-	-	-	-	-	-	-	-	-	19	MSH		
MW-603	-	-	1,796,856,762	6,542,035,518	139.25	138.16	-	4	-	-	-	-	-	-	-	-	-	-	-	35	MSH		
MW-604	-	-	1,796,985,026	6,539,712,258	115.33	114.54	-	4	-	-	-	-	-	-	-	-	-	-	-	20	MSH		
MW-605	-	-	1,794,985,026	6,539,712,258	115.33	114.54	-	4	-	-	-	-	-	-	-	-	-	-	-	14	MSH		
MW-606	-	-	1,794,677,006	6,541,061,771	114.54	113.89	-	4	-	-	-	-	-	-	-	-	-	-	-	19	MSH		
MW-607	-	-	1,785,402,838	6,542,165,985	127.00	126.03	-	4	-	-	-	-	-	-	-	-	-	-	-	13	MSH		
W-1	-	-	1,797,354,443	6,542,340,345	144.12	142.89	-	4	-	-	-	-	-	-	-	-	-	-	-	-	Walker		
W-2 ^b	-	-	-	-	-	139.11	-	-	-	-	-	-	-	-	-	275	-	-	-	-	Walker		
W-3 ^b	-	-	-	-	-	136.11	-	-	-	-	-	-	-	-	-	266	-	-	-	-	Walker		
W-3A	-	-	1,796,865,926	6,542,332,526	135.75	?	-	4	-	20	-	-	-	-	-	115	-	-	-	-	21	Walker	
W-4	-	-	1,796,865,926	6,542,328,230	141.72	142.38	-	4	-	20	-	-	-	-	-	-	-	-	-	-	IT (1986)		
W-9	8/22/2006	TA	1,798,584,567	6,542,096,982	139.67	139.12	8	2	0.010	35	73	111	75	110	110	120.5	68	28	64	29	29	Refinery	
W-10	8/21/2006	TA	1,798,621,591	6,541,203,636	140.88	139.99	8	2	0.010	35	73	111	75	110	110	130	67	29	65	30	30	Refinery	
W-11	8/25/2006	TA	1,798,136,157	6,540,684,363	138.70	141.29	8	2	0.010	35	73	111	75	110	110	119	68	30	66	31	31	Refinery	
W-12	8/23/2006	TA	1,798,223,393	6,541,782,651	142.17	144.42	8	2	0.010	35	75	114	75	114	114	120.5	69	30	30	24	Refinery		
W-14A ^c	1/22/2008	Boart Longyear	-	-	-	-	9	2	0.020	45	67	112	67	112	112	200	-	-	-	-	MSH		
W-14B ^c	1/30/2008	Boart Longyear	-	-	-	-	9	2	0.020	10	157	167	157	167	187	200	-	-	-	-	MSH		
W-14C ^c	-	-	-	-	-	-	9	2	0.020	10	185	195	185	195	195	200	-	-	-	-	MSH		
W-15A ^c	11/27/2007	Cascade Drilling, Inc.	-	-	-	-	10	2	0.020	45	78	126	80	125	125	200	-	-	-	-	MSH		
W-15B ^c	12/10/2007	Cascade Drilling, Inc.	-	-	-	-	10	2	0.020	10	143	156	145	155	155	200	-	-	-	-	MSH		
W-15C ^c	-	-	-	-	-	-	10	2	0.020	10	188	200	190	200	200	200	-	-	-	-	MSH		
W-16A ^c	10/24/2007	Cascade Drilling, Inc.	-	-	-	-	10	2	0.020	45	78	125	78	123	123	200	-	-	-	-	Walker		
W-16B ^c	10/30/2007	Cascade Drilling, Inc.	-	-	-	-	10	2	0.020	10	143	156	152	162	162	200	-	-	-	-	Walker		
W-16C ^c	-	-	-	-	-	-	10	2	0.020	10	184	200	186	196	196	200	-	-	-	-	Walker		
W-17A ^c	1/31/2008	Boart Longyear	-	-	-	-	9	2	0.020	45	63	108	83	108	108	200	-	-	-	-	Refinery		
W-17B ^c	2/8/2008	Boart Longyear	-	-	-	-	9	2	0.020	10	159	169	159	169	169	200	-	-	-	-	Refinery		
W-17C ^c	-	-	-	-	-	-	9	2	0.020	10	190	200	190	200	200	200	-	-	-	-	Refinery		
Groundwater Production Wells																							
W-7	-	-	-	-	-	-	-	-	-	80	-	-	450	530	690	-	-	-	-	-	Refinery		
W-8	-	-	-	-	-	-	-	-	-	90	-	-	600	690	-	-	-	-	-	Refinery			
W-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	994	-	-	-	-	Refinery		

Table 2
Groundwater Level Measurements

First Quarter 2009 Groundwater Monitoring Report
Isola Law Group, LLP
Former CENCO Refinery
Santa Fe Springs, California

Monitoring Well	Sampling Date	Water Level (ft)		Condition	Sheen	Depth (ft)	Elevation (ft)
		2009	2008				
EW-1 ^o	1/12/2009	112.35	100.17	NA		12.23	112.40
	2/1/2008	112.58	98.61	NA	0	13.79	112.40
MW-101 ¹	1/12/2009	90.78	90.93	NA	0	Dry	135.23
	2/1/2008	91.05	90.61	NA	0	44.62	135.23
MW-103	1/12/2009	94.92	Dry	NA	0	Dry	136.95
	2/1/2008	94.98	94.70	NA	0	42.25	136.95
MW-104A	1/12/2009	100.56	90.91	NA	0	52.48	143.39
	2/1/2008	100.35	88.91	NA	0	54.48	143.39
MW-105	1/12/2009	100.58	95.68	NA	0	42.95	138.63
	2/1/2008	100.88	90.69	NA	0	47.94	138.63
MW-106A	1/12/2009	110.41	99.12	NA	0	53.39	152.51
	2/1/2008	110.51	96.39	NA	0	56.12	152.51
MW-107A	1/12/2009	109.43	98.56	NA	0	48.15	146.71
	2/1/2008	109.39	96.82	NA	0	49.89	146.71
MW-201	1/12/2009	101.49	96.89	NA	0	36.02	132.91
	2/1/2008	101.49	92.30	NA	0	40.61	132.91
MW-202	1/12/2009	92.81	Dry	NA	0	Dry	137.89
	2/1/2008	92.53	Dry	NA	0	Dry	137.89
MW-203	1/12/2009	102.57	96.68	NA	0	46.75	143.43
	2/1/2008	102.66	94.78	NA	0	48.65	143.43
MW-204	1/12/2009	102.59	100.60	NA	0	41.58	142.18
	2/1/2008	103.52	96.55	NA	0	45.63	142.18
MW-205	1/12/2009	98.48	96.15	NA	0	41.89	138.04
	2/1/2008	98.62	91.33	NA	0	46.71	138.04
MW-501A ¹	1/12/2009	93.43	93.31	NA	0	Dry	128.70
	2/1/2008	93.25	93.05	NA	0	35.65	128.70
MW-502	1/12/2009	NM	98.30	98.15	0.15	30.12	128.30
	2/1/2008	100.89	93.67	NA	0	34.63	128.30
MW-503B	1/12/2009	109.05	98.71	NA	Sheen	31.25	129.96
	2/1/2008	108.89	94.29	NA	0	35.67	129.96
MW-504	1/12/2009	96.18	Dry	NA	0	Dry	134.51
	2/1/2008	96.15	94.03	NA	0	40.48	134.51
MW-600A ¹	1/12/2009	93.00	92.88	NA	0	Dry	120.34
	2/1/2008	93.11	88.92	NA	0	31.42	120.34
MW-601A	1/12/2009	89.99	Dry	NA	0	Dry	126.53
	2/1/2008	89.79	Dry	NA	0	Dry	126.53

Table 2
Groundwater Level Measurements

First Quarter 2009 Groundwater Monitoring Report
Isola Law Group, LLP
Former CENCO Refinery
Santa Fe Springs, California

Groundwater Level Measurements (ft)							
	Date	Water Level	Method	Depth	Specific Conductance	Temperature	pH
MW-603	1/13/2009	97.93	92.84	NA	0	25.70	118.54
	2/1/2008	97.82	88.30	NA	0	30.24	118.54
MW-604	1/12/2009	103.49	Dry	NA	0	Dry	138.16
	2/1/2008	103.58	102.93	NA	0	35.23	138.16
MW-605 ¹	1/12/2009	94.26	93.79	NA	0	20.75	114.54
	2/1/2008	94.11	89.76	NA	0	24.78	114.54
MW-606	1/12/2009	99.56	96.93	NA	0	16.96	113.89
	2/1/2008	99.41	92.79	NA	0	21.10	113.89
MW-607 ¹	1/12/2009	107.56	107.04	NA	0	Dry	126.03
	2/1/2008	107.06	103.43	NA	0	22.60	126.03
W-1	1/12/2009	129.87	105.51	NA	0	37.38	142.89
	2/1/2008	129.95	101.62	NA	0	41.27	142.89
W-3A ⁰	1/12/2009	111.65	105.86	NA	0	18.14	124.00
	2/1/2008	111.54	102.55	NA	0	21.45	124.00
W-4	1/12/2009	129.86	105.86	NA	0	36.52	142.38
	2/1/2008	129.83	103.03	NA	0	39.35	142.38
W-7 ²	1/12/2009	NM	101.11	NA	0	NA	NM
	2/1/2008	NM	99.07	NA	0	NA	NM
W-8 ²	1/12/2009	NM	82.63	NA	0	NA	NM
	2/1/2008	NM	77.92	NA	0	NA	NM
W-9	1/12/2009	110.06	87.07	NA	0	52.05	139.12
	2/1/2008	110.11	85.04	NA	0	54.08	139.12
W-10	1/12/2009	110.41	95.19	NA	0	44.80	139.99
	2/1/2008	110.20	90.65	NA	0	49.34	139.99
W-11	1/12/2009	NM	99.26	98.83	0.43	42.37	141.29
	2/1/2008	112.81	93.91	NA	Sheen	47.38	141.29
W-12	1/12/2009	115.97	100.51	NA	0	43.91	144.42
	2/1/2008	115.98	96.08	NA	0	48.34	144.42
W-14A ³	1/12/2009	112.08	93.31	NA	0	NA	NM
	2/1/2008	108.16	89.05	NA	0	NA	NM
W-14B ³	1/12/2009	166.54	91.71	NA	0	NA	NM
	2/1/2008	166.44	87.23	NA	0	NA	NM
W-14C ³	1/12/2009	194.92	92.03	NA	0	NA	NM
	2/1/2008	194.82	87.41	NA	0	NA	NM
W-15A ³	1/12/2009	125.56	111.38	NA	0	NA	NM
	2/1/2008	125.21	107.40	NA	0	NA	NM
W-15B ³	1/12/2009	155.57	111.25	NA	0	NA	NM
	2/1/2008	155.66	107.32	NA	0	NA	NM
W-15C ³	1/12/2009	197.66	111.46	NA	0	NA	NM
	2/1/2008	197.61	107.50	NA	0	NA	NM

Table 2
Groundwater Level Measurements

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Isola Law Group, LLP
Former CENCO Refinery
Santa Fe Springs, California

Well	Date	Elevation (ft)	Depth to Water (ft)	NA	0	NA	NM
W-16A ³	1/12/2009	123.07	106.72	NA	0	NA	NM
	2/1/2008	122.96	103.99	NA	0	NA	NM
W-16B ³	1/12/2009	160.12	121.25	NA	0	NA	NM
	2/1/2008	160.02	116.98	NA	0	NA	NM
W-16C ³	1/12/2009	196.32	121.04	NA	0	NA	NM
	2/1/2008	196.21	116.44	NA	0	NA	NM
W-17A ³	1/12/2009	108.23	94.03	NA	0	NA	NM
	2/14/2008	108.31	89.79	NA	0	NA	NM
W-17B ³	1/12/2009	169.56	109.84	NA	0	NA	NM
	2/14/2008	169.18	103.45	NA	0	NA	NM
W-17C ³	1/12/2009	200.61	109.93	NA	0	NA	NM
	2/14/2008	200.60	103.47	NA	0	NA	NM

Notes:

⁰FPPH was not detected during gauging but only after the well was purged.

¹contained groundwater during gauging but dewatered during purging and did not recharge within a reasonable timeframe for sampling

²Former production wells W-7 and W-8 were never surveyed and are not used in calculating groundwater gradients (screened in a deeper aquifer).

³survey results pending

Groundwater elevation = (top of casing elevation - depth to water) + (0.8 x FPPH thickness).

btc = below top of casing

FPPH = free-phase petroleum hydrocarbon

msl = mean sea level

NA = not applicable

NM = not measured

Table 3
TPHg Concentrations in Groundwater

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Isola Law Group, LLP
Former CENCO Refinery
Santa Fe Springs, California

Sample ID	Sample ID US	Date	Value
MW-104A	MW-104A-0109	1/16/2009	46 J
MW-105	MW-105-0109	1/15/2009	160
	MW-105-0109-D		180
MW-106A	MW-106A-0109	1/19/2009	220
MW-107A	MW-107A-0109	1/19/2009	1,100
	MW-107A-0109-D		1,200
MW-201	MW-201-0109	1/20/2009	1,400 ZX
MW-203	MW-203-0109	1/19/2009	65
MW-205	MW-205-0109	1/19/2009	380 QP1
MW-503B	MW-503B-0109	1/21/2009	6,200
MW-603	MW-603-0109	1/13/2009	75
MW-606	MW-606-0109	1/13/2009	ND<50
W-1	W-1-0109	1/20/2009	230
	W-1-0109-D		220
W-4	W-4-0109	1/19/2009	140
W-7	W-7-0109	1/13/2009	ND<50
W-8	W-8-0109	1/13/2009	120
W-9	W-9-0109	1/15/2009	46 J
W-10	W-10-0109	1/21/2009	20,000
	W-10-0109-D		20,000
W-12	W-12-0109	1/20/2009	620 ZX
W-14A	W-14A-0109	1/13/2009	27 J
W-14B	W-14B-0109	1/13/2009	170
W-14C	W-14C-0109	1/14/2009	120
W-15A	W-15A-0109	1/14/2009	230
W-15B	W-15B-0109	1/14/2009	340
W-15C	W-15C-0109	1/15/2009	29 J
W-16A	W-16A-0109	1/21/2009	290
W-16B	W-16B-0109	1/21/2009	73
W-16C	W-16C-0109	1/21/2009	510
W-17A	W-17A-0109	1/16/2009	78
W-17B	W-17B-0109	1/16/2009	38 J
W-17C	W-17C-0109	1/16/2009	29 J

Notes:

All units in micrograms per liter.

Detections are bolded.

TPHg was analyzed via U.S. Environmental Protection Agency Method 8015M.

No California Department of Public Health Maximum Contaminant Level exists for TPHg.

J = estimated concentration below reporting limit

QP1 = hydrocarbon result partly due to individual peak(s) in quantitation range

ZX = due to sample matrix effects, the surrogate recovery was outside of acceptance limits

ND< = not detected at the indicated reporting limit

TPHg = total petroleum hydrocarbons as gasoline

Table 4
VOC and Oxygenate Concentrations in Groundwater

First Quarter 2009 Groundwater Monitoring Report
Isola Law Group, LLP
Former CENCO Refinery
Santa Fe Springs, California

	Well ID:	MW-104A	MW-105		MW-106A	MW-107A		MW-201	MW-203	MW-205	MW-503B
	Sample ID:	MW-104A-0109	MW-105-0109	MW-105-0109-D	MW-106A-0109	MW-107A-0109	MW-107A-0109-D	MW-201-0109	MW-203-0109	MW-205-0109	MW-503B-0109
	Date:	1/16/2009	1/15/2009	1/15/2009	1/18/2009	1/19/2009	1/19/2009	1/20/2009	1/19/2009	1/19/2009	1/21/2009
Analyte	California MCL										
Benzene	1	ND<2.0	0.85 J	0.71 J	0.46 J	13	12	97	0.53 J	150	410
<i>n</i> -Butylbenzene	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	2.3 J	2.1 J	1.6 J	ND<5.0	ND<10	16 J
<i>sec</i> -Butylbenzene	NA	ND<5.0	ND<5.0	ND<5.0	0.75 J	9.1	9.0	1.6 J	ND<5.0	0.60 J	23 J
<i>tert</i> -Butylbenzene	NA	ND<5.0	ND<5.0	ND<5.0	0.82 J	1.1 J	1.2 J	0.23 J	ND<5.0	ND<10	2.4 J
Chlorobenzene	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<10
Chloroethane	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<25
Chloroform	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<10
Chloromethane	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<25
2-Chlorotoluene	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<25
Dibromomethane	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<10
1,2-Dichlorobenzene	600	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<10
1,4-Dichlorobenzene	5	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<10
1,1-Dichloroethane	5	ND<2.0	2.6	2.5	0.99 J	ND<2.0	ND<2.0	ND<2.0	0.92 J	ND<4.0	ND<10
1,2-Dichloroethane	0.5	ND<2.0	1.0 J	0.86 J	ND<2.0	ND<2.0	ND<2.0	2.1	ND<2.0	ND<4.0	ND<10
1,1-Dichloroethene	6	0.47 J	15	13	ND<5.0	ND<5.0	ND<5.0	0.73 J	ND<5.0	ND<10	ND<25
<i>cis</i> -1,2-Dichloroethene	6	4.6	10	9.0	13	6.8	7.2	16	20	3.0 J	9.2 J
<i>trans</i> -1,2-Dichloroethene	10	0.57 J	3.2	2.9	11	7.3	7.5	0.60 J	3.0	ND<4.0	ND<10
1,2-Dichloropropane	5	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<10
Ethylbenzene	300	ND<2.0	ND<2.0	ND<2.0	ND<2.0	1.5 J	1.6 J	17	ND<2.0	2.0 J	39
Isopropylbenzene	NA	ND<2.0	ND<2.0	ND<2.0	2.9	49	48	5.8	ND<2.0	1.5 J	110
<i>p</i> -Isopropyltoluene	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	2.4	ND<2.0	ND<4.0	2.6 J
Naphthalene	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	1.1 J	1.3 J	ND<5.0	ND<5.0	ND<10	36
<i>n</i> -Propylbenzene	NA	ND<2.0	ND<2.0	ND<2.0	1.0 J	50	48	5.3	ND<2.0	0.78 J	200
Tetrachloroethylene	5	ND<2.0	41	35	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<10
Toluene	150	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	1.9 J	1.9 J	3.9	ND<2.0	0.86 J
Trichloroethylene	5	0.39 J	84	75	0.29 J	2.0	2.1	ND<2.0	ND<2.0	ND<4.0	ND<10
Trichlorofluoromethane	150	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<25
1,2,4-Trimethylbenzene	NA	0.55 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	2.4	ND<2.0	ND<4.0	ND<10
1,3,5-Trimethylbenzene	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.28 J	0.27 J	1.7 J	ND<2.0	ND<4.0	4.2 J
Vinyl Chloride	0.5	ND<5.0	2.6 J	2.3 J	6.3	2.0 J	1.8 J	1.6 J	7.6	ND<10	25
<i>p/m</i> -Xylenes	1,750	1.0 J	ND<2.0	ND<2.0	ND<2.0	9.9	9.6	19	ND<2.0	ND<4.0	28
<i>o</i> -Xylene	1,750	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.43 J	0.38 J	1.0 J	ND<2.0	ND<4.0	3.0 J
Total Xylenes	1,750	1.2 J	ND<4.0	ND<4.0	ND<4.0	10	10	20	ND<2.0	ND<8.0	32
Di-isopropyl Ether (DIPE)	NA	ND<5.0	0.86 J	0.72 J	0.31 J	ND<5.0	ND<5.0	ND<5.0	0.58 J	ND<10	ND<25
Methyl- <i>tert</i> -Butyl Ether (MTBE)	13	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	0.84 J	ND<10	3.0 J
<i>tert</i> -Amyl Methyl Ether (TAME)	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<25
<i>tert</i> -Butyl Alcohol (TBA)	NA		23 J	ND<50	ND<50	17 J	66	62	44 J	40 J	13 J
											ND<250

Table 4
VOC and Oxygenate Concentrations in Groundwater

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Former CENCO Refinery
Santa Fe Springs, California

	Well ID:	MW-603	MW-606	W-1		W-4	W-7	W-8	W-9	W-10		W-12
	Sample ID:	MW-603-0109	MW-606-0109	W-1-0109	W-1-0109-D	W-4-0109	W-7-0109	W-8-0109	W-9-0109	W-10-0109	W-10-0109-D	W-12-0109
	Date:	1/13/2009	1/13/2009	1/20/2009	1/20/2009	1/19/2009	1/13/2009	1/13/2009	1/15/2009	1/21/2009	1/21/2009	1/20/2009
Analyte	California MCL											
Benzene	1	0.39 J	ND<2.0	15	19	0.51 J	0.35 J	0.55 J	ND<2.0	8,100	7,600	ND<2.0
<i>n</i> -Butylbenzene	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<500	ND<500	ND<500	1.9 J
<i>sec</i> -Butylbenzene	NA	ND<5.0	ND<5.0	0.74 J	1.1 J	1.4 J	ND<5.0	ND<5.0	ND<500	ND<500	ND<500	1.4 J
<i>tert</i> -Butyl Benzene	NA	ND<5.0	ND<5.0	0.52 J	0.76 J	0.37 J	ND<5.0	ND<5.0	ND<5.0	ND<500	ND<500	ND<5.0
Chlorobenzene	NA	ND<2.0	ND<2.0	0.37 J	0.49 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<2.0
Chloroethane	NA	ND<5.0	ND<5.0	ND<5.0	0.54 J	ND<5.0	ND<5.0	ND<5.0	ND<500	ND<500	ND<500	ND<5.0
Chloroform	NA	ND<2.0	2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<200	ND<2.0
Chloromethane	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	0.50 J	ND<5.0	ND<5.0	ND<500	ND<500	ND<500	ND<5.0
2-Chlorotoluene	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	4.3 J	ND<5.0	ND<5.0	ND<5.0	ND<500	ND<500	ND<5.0
Dibromomethane	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<200	ND<2.0
1,2-Dichlorobenzene	600	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<200	ND<2.0
1,4-Dichlorobenzene	5	ND<2.0	ND<2.0	0.58 J	0.81 J	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<200	ND<2.0
1,1-Dichloroethane	5	4.4	ND<2.0	0.58 J	0.61 J	1.0 J	1.5 J	ND<2.0	ND<2.0	ND<200	ND<200	ND<2.0
1,2-Dichloroethane	0.5	5.6	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<200	ND<2.0
1,1-Dichloroethene	6	48	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<500	ND<500	ND<500	ND<5.0
<i>cis</i> -1,2-Dichloroethene	6	17	ND<2.0	ND<2.0	0.40 J	7.6	ND<2.0	ND<2.0	3.2	ND<200	ND<200	5.4
<i>trans</i> -1,2-Dichloroethene	10	2.8	ND<2.0	0.87 J	1.1 J	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<200	0.48 J
1,2-Dichloropropane	5	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<200	ND<2.0
Ethylbenzene	300	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.28 J	0.39 J	ND<2.0	440	410	0.69 J
Isopropylbenzene	NA	ND<2.0	ND<2.0	3.6	4.8	5.6	ND<2.0	ND<2.0	ND<2.0	38 J	35 J	1.0 J
<i>p</i> -Isopropyltoluene	NA	ND<2.0	ND<2.0	ND<2.0	1.3 J	0.45 J	ND<2.0	ND<2.0	ND<200	ND<200	ND<200	0.94 J
Naphthalene	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	0.43 J	ND<5.0	ND<5.0	ND<5.0	230 J	230 J	ND<5.0
<i>n</i> -Propylbenzene	NA	ND<2.0	ND<2.0	1.8 J	2.5	2.8	ND<2.0	ND<2.0	ND<2.0	51 J	49 J	1.2 J
Tetrachloroethene	5	74	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<200	ND<2.0
Toluene	150	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.93 J	ND<2.0	73 J	63 J	ND<2.0
Trichloroethene	5	79	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<200	ND<2.0
Trichlorofluoromethane	150	0.61 J	1.3 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<500	ND<500	ND<500	ND<5.0
1,2,4-Trimethylbenzene	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.25 J	ND<2.0	230	220	ND<2.0
1,3,5-Trimethylbenzene	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	49 J	45 J	ND<2.0
Vinyl Chloride	0.5	1.2 J	ND<5.0	2.8 J	3.7 J	1.8 J	ND<5.0	ND<5.0	ND<500	ND<500	ND<500	2.4 J
<i>p/m</i> -Xylenes	1,750	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	1,400	1,300	ND<2.0
<i>o</i> -Xylene	1,750	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<200	ND<200	ND<2.0
Total Xylenes	1,750	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	1,400	1,300	ND<4.0
Di-isopropyl Ether (DIPE)	NA	ND<5.0	ND<5.0	0.41 J	0.49 J	0.41 J	ND<5.0	ND<5.0	ND<500	ND<500	ND<500	0.28 J
Methyl- <i>tert</i> -Butyl Ether (MTBE)	13	ND<5.0	ND<5.0	3.1 J	3.9 J	ND<5.0	ND<5.0	ND<5.0	ND<500	ND<500	ND<500	ND<5.0
<i>tert</i> -Amyl Methyl Ether (TAME)	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	0.38 J	ND<5.0	ND<5.0	ND<500	ND<500	ND<500	ND<5.0
<i>tert</i> -Butyl Alcohol (TBA)	NA	ND<50	ND<50	23 J	35 J	47 J	ND<50	ND<50	18 J	ND<5,000	ND<5,000	32 J

Table 4
VOC and Oxygenate Concentrations in Groundwater

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Former CENCO Refinery
Santa Fe Springs, California

	Well ID:	W-14A	W-14B	W-14C	W-15A	W-15B	W-15C	W-16A	W-16B	W-16C	W-17A	W-17B	W-17C
	Sample ID:	W-14A-0109	W-14B-0109	W-14C-0109	W-15A-0109	W-15B-0109	W-15C-0109	W-16A-0109	W-16B-0109	W-16C-0109	W-17A-0109	W-17B-0109	W-17C-0109
	Date:	1/13/2009	1/13/2009	1/14/2009	1/14/2009	1/14/2009	1/15/2009	1/21/2009	1/21/2009	1/21/2009	1/16/2009	1/16/2009	1/16/2009
Analyte	California MCL												
Benzene	1	ND<2.0	ND<2.0	2.5	7.4	160	1.1 J	30	16	40	ND<2.0	ND<2.0	ND<2.0
<i>n</i> -Butylbenzene	NA	ND<5.0	ND<5.0	ND<5.0	0.84 J	1.7 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
<i>sec</i> -Butylbenzene	NA	ND<5.0	ND<5.0	1.0 J	1.2 J	2.8 J	ND<5.0	2.8 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
<i>tert</i> -Butyl Benzene	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	0.34 J	ND<5.0	0.70 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Chlorobenzene	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.45 J	ND<2.0	16	ND<2.0	ND<2.0	ND<2.0
Chloroethane	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	0.90 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Chloroform	NA	0.50 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Chloromethane	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
2-Chlorotoluene	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Dibromomethane	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,2-Dichlorobenzene	600	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	2.1	ND<2.0	ND<2.0	ND<2.0
1,4-Dichlorobenzene	5	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1-Dichloroethane	5	ND<2.0	1.2 J	3.4	ND<2.0	ND<2.0	1.2 J	2.5	ND<2.0	35	ND<2.0	ND<2.0	ND<2.0
1,2-Dichloroethane	0.5	ND<2.0	ND<2.0	0.51 J	ND<2.0	ND<2.0	0.86 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
1,1-Dichloroethene	6	ND<5.0	10	17	ND<5.0	ND<5.0	0.66 J	ND<5.0	ND<5.0	3.8 J	0.46 J	ND<5.0	ND<5.0
<i>cis</i> -1,2-Dichloroethene	6	1.5 J	4.8	34	ND<2.0	ND<2.0	5.7	ND<2.0	9.7	73	1.4 J	ND<2.0	1.2 J
<i>trans</i> -1,2-Dichloroethene	10	ND<2.0	1.2 J	8.8	ND<2.0	ND<2.0	ND<2.0	0.72 J	15	17	0.39 J	ND<2.0	ND<2.0
1,2-Dichloropropane	5	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	3.7	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Ethylbenzene	300	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.57 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Isopropylbenzene	NA	ND<2.0	ND<2.0	0.69 J	6.4	19	ND<2.0	9.4	0.84 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0
p-Isopropyltoluene	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Naphthalene	NA	ND<5.0	ND<5.0	0.53 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	0.41 J	ND<5.0	ND<5.0
<i>n</i> -Propylbenzene	NA	ND<2.0	ND<2.0	ND<2.0	10	23	ND<2.0	4.2	0.38 J	ND<2.0	0.27 J	ND<2.0	ND<2.0
Tetrachloroethene	5	ND<2.0	8.4	ND<2.0	ND<2.0	ND<2.0							
Toluene	150	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.89 J	ND<2.0	ND<2.0	0.45 J	ND<2.0	ND<2.0	ND<2.0
Trichloroethene	5	2.0	28	30	ND<2.0	ND<2.0	3.2	ND<2.0	1.0 J	0.81 J	0.50 J	ND<2.0	0.49 J
Trichlorofluoromethane	150	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
1,2,4-Trimethylbenzene	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.37 J	ND<2.0	ND<2.0	ND<2.0	0.33 J	ND<2.0	ND<2.0
1,3,5-Trimethylbenzene	NA	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.79 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Vinyl Chloride	0.5	ND<5.0	ND<5.0	0.89 J	ND<5.0	ND<5.0	0.90 J	7.2	ND<5.0	24	ND<5.0	ND<5.0	ND<5.0
p/m-Xylenes	1,750	ND<2.0	ND<2.0	ND<2.0	ND<2.0	5.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
o-Xylene	1,750	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	0.70 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
Total Xylenes	1,750	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	5.7	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0
Di-Isopropyl Ether (DIPE)	NA	ND<5.0	ND<5.0	0.56 J	ND<5.0	ND<5.0	0.25 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
Methyl- <i>tert</i> -Butyl Ether (MTBE)	13	ND<5.0	ND<5.0	ND<5.0	190	20	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
<i>tert</i> -Amyl Methyl Ether (TAME)	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
<i>tert</i> -Butyl Alcohol (TBA)	NA	6.7 J	ND<50	ND<50	170	110	27 J	31 J	11 J	ND<50	54	18 J	21 J

Notes:

All units in micrograms per liter.

Detections are bolded, and only detected analytes are shown on table.

Shaded results are equal to or exceed the California MCL.

Volatile organic compounds (VOCs) and oxygenates were analyzed using U.S. Environmental Protection Agency Method 8260B.

J = estimated concentration below reporting limit

MCL = California Department of Public Health Maximum Contaminant Level

NA = no MCL available

ND< = not detected at the indicated reporting limit

Table 5
Hexavalent Chromium Concentrations in Groundwater

First Quarter 2009 Groundwater Monitoring Report
Isola Law Group, LLP
Former CENCO Refinery
Santa Fe Springs, California

Monitoring Well	Sample ID	Sample Date	Hexavalent Chromium Concentration (mg/l)
MW-104A	MW-104A-0109	1/16/2009	ND<0.0020
MW-105	MW-105-0109	1/15/2009	ND<0.0020
	MW-105-0109-D		ND<0.0020
MW-106A	MW-106A-0109	1/19/2009	ND<0.0020
MW-107A	MW-107A-0109	1/19/2009	ND<0.0020
	MW-107A-0109-D		ND<0.0020
MW-201	MW-201-0109	1/20/2009	ND<0.0020
MW-203	MW-203-0109	1/19/2009	ND<0.0020
MW-205	MW-205-0109	1/19/2009	ND<0.0020
MW-503B	MW-503B-0109	1/21/2009	ND<0.0020
MW-603	MW-603-0109	1/13/2009	ND<0.0020
MW-606	MW-606-0109	1/13/2009	0.0012 J
W-1	W-1-0109	1/20/2009	ND<0.0020
	W-1-0109-D		ND<0.0020
W-4	W-4-0109	1/19/2009	ND<0.0020
W-7	W-7-0109	1/13/2009	ND<0.0020
W-8	W-8-0109	1/13/2009	ND<0.0020
W-9	W-9-0109	1/15/2009	ND<0.0020
W-10	W-10-0109	1/21/2009	ND<0.0020
	W-10-0109-D		ND<0.0020
W-12	W-12-0109	1/20/2009	ND<0.0020
W-14A	W-14A-0109	1/13/2009	ND<0.0020
W-14B	W-14B-0109	1/13/2009	0.00044 J
W-14C	W-14C-0109	1/14/2009	ND<0.0020
W-15A	W-15A-0109	1/14/2009	ND<0.0020
W-15B	W-15B-0109	1/14/2009	ND<0.0020
W-15C	W-15C-0109	1/15/2009	ND<0.0020
W-16A	W-16A-0109	1/21/2009	ND<0.0020
W-16B	W-16B-0109	1/21/2009	ND<0.0020
W-16C	W-16C-0109	1/21/2009	ND<0.0020
W-17A	W-17A-0109	1/16/2009	ND<0.0020
W-17B	W-17B-0109	1/16/2009	ND<0.0020
W-17C	W-17C-0109	1/16/2009	ND<0.0020

Notes:

All units in milligrams per liter.

Detections are bolded.

Hexavalent chromium was analyzed using U.S. Environmental Protection Agency Method 7199.

J = estimated concentration below reporting limit

ND< = not detected at the indicated reporting limit

Table 6
Biodegradation Parameter Results for Groundwater

First Quarter 2009 Groundwater Monitoring Report
Isola Law Group, LLP
Former CENCO Refinery
Santa Fe Springs, California

Monitoring Well	Location	Sampling Date	DO (mg/L)	DO (ppm)	DO (mV)	DO (SU)	DO (mg/L)	DO (ppm)	DO (mV)	DO (SU)	DO (mg/L)	DO (ppm)	DO (mV)	DO (SU)
EW-1	—	1/20/2009	NA	NA	NA	NA	NA	NA	NA	NA	7.80	0.00 ⁰	-286	
MW-104A	MW-104A-0109	1/16/2009	0.0015	0.42	150	630	0.10	7.73	2.61	160				
MW-105	MW-105-0109	1/15/2009	NA	NA	NA	NA	NA	7.14	1.51	-110				
MW-106A	MW-106A-0109	1/19/2009	NA	NA	NA	NA	NA	7.75	2.10	39				
MW-107A	MW-107A-0109	1/19/2009	NA	NA	NA	NA	NA	7.49	1.95	-289				
MW-201	MW-201-0109	1/20/2009	NA	NA	NA	NA	NA	7.20	0.27 ⁰	-122				
MW-203	MW-203-0109	1/19/2009	NA	NA	NA	NA	NA	7.71	3.82	52				
MW-205	MW-205-0109	1/19/2009	0.085	ND<0.11	290	620	2.0	7.71	1.75	-69				
MW-503B	MW-503B-0109	1/21/2009	0.16	ND<0.11	4.4	700	1.0	8.05	4.50	-139				
MW-603	MW-603-0109	1/13/2009	NA	NA	NA	NA	NA	8.05	4.30	129				
MW-606	MW-606-0109	1/13/2009	ND<0.0010	2.9	210	380	ND<0.10	8.10	4.66	118				
W-1	W-1-0109	1/20/2009	NA	NA	NA	NA	NA	7.92	0.00 ⁰	-98				
W-3A	—	1/20/2009	NA	NA	NA	NA	NA	7.92	0.00 ⁰	-88				
W-4	W-4-0109	1/19/2009	NA	NA	NA	NA	NA	7.28	0.64	44				
W-9	W-9-0109	1/15/2009	NA	NA	NA	NA	NA	7.05	1.79	-160				
W-10	W-10-0109	1/21/2009	NA	NA	NA	NA	NA	6.83	0.00 ⁰	-158				
W-12	W-12-0109	1/20/2009	NA	NA	NA	NA	NA	7.08	0.00 ⁰	-152				
W-14A	W-14A-0109	1/13/2009	NA	NA	NA	NA	NA	7.56	4.22	27				
W-14B	W-14B-0109	1/13/2009	NA	NA	NA	NA	NA	7.77	3.88	-19				
W-14C	W-14C-0109	1/14/2009	NA	NA	NA	NA	NA	7.99	2.93	-43				
W-15A	W-15A-0109	1/14/2009	NA	NA	NA	NA	NA	7.41	0.99	-175				
W-15B	W-15B-0109	1/14/2009	NA	NA	NA	NA	NA	7.33	1.72	87				
W-15C	W-15C-0109	1/15/2009	NA	NA	NA	NA	NA	8.00	1.80	103				
W-16A	W-16A-0109	1/21/2009	NA	NA	NA	NA	NA	8.13	0.00 ⁰	95				
W-16B	W-16B-0109	1/21/2009	NA	NA	NA	NA	NA	8.39	3.39	-193				
W-16C	W-16C-0109	1/21/2009	NA	NA	NA	NA	NA	8.51	3.87	-249				
W-17A	W-17A-0109	1/16/2009	NA	NA	NA	NA	NA	8.04	0.82	50				
W-17B	W-17B-0109	1/16/2009	NA	NA	NA	NA	NA	8.09	1.70	-60				
W-17C	W-17C-0109	1/16/2009	NA	NA	NA	NA	NA	8.16	2.33	-134				

Notes:

⁰dissolved oxygen sensor damaged, so data not reliable

Detections are bolded.

Methane was analyzed using U.S. Environmental Protection Agency Method RSK-175M.

Nitrate (as N) and sulfate were analyzed using U.S. Environmental Protection Agency Method 300.0.

Total alkalinity (as calcium carbonate [CaCO₃]) was analyzed using Standard Method 2320B.

Ferrous iron was analyzed using Standard Method 3500-FeD.

DO = dissolved oxygen

J = estimated concentration below reporting limit

mg/L = milligram(s) per liter

mV = millivolt(s)

ND< = not detected at the indicated reporting limit

NA = not analyzed

ORP = oxidation-reduction potential

SU = standard units

Table 7
Comparison of Selected February 2008 and January 2009 Groundwater Monitoring Data

First Quarter 2009 Groundwater Monitoring Report

Isola Law Group, LLP
Former CENCO Refinery
Santa Fe Springs, California

Well ID	Feb 2008	Jan 2009	Feb 2008	Jan 2009	Feb 2008	Jan 2009						
MW-104A	ND<50	46 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	1.0 J	ND<2.0	ND<2.0
MW-105	170	180	1.2 J	0.85 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
MW-106A	220	220	1.6 J	0.46 J	ND<2.0	ND<2.0	0.42 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
MW-107A	2,800	1,200	19	13	3.0	1.9 J	3.0	1.6 J	12	9.9	ND<2.0	0.43 J
MW-201	670	1,400	39	97	ND<2.0	3.9	3.2	17	ND<2.0	19	ND<2.0	1.0 J
MW-203	87	65	1.4 J	0.53 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
MW-205	260	380	4.9	150	ND<2.0	0.86 J	ND<2.0	2.0 J	ND<2.0	ND<4.0	ND<2.0	ND<4.0
MW-503B	2,700	6,200	220	410	3.1 J	14	3.4 J	39	3.5 J	28	ND<8.0	3.0 J
MW-603	120	75	ND<2.0	0.39 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
MW-606	ND<50	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-1	1,000	230	96	19	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-4	210	140	4.4	0.51 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-7	ND<50	ND<50	ND<2.0	0.35 J	ND<2.0	ND<2.0	ND<2.0	0.28 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-8	160	120	0.46 J	0.55 J	0.81 J	0.93 J	0.39 J	0.39 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-9	ND<50	46 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-10	28,000	20,000	7,200	8,100	280	73 J	300	440	1,300	1,400	190 J	ND<200
W-12	410	620	0.94 J	ND<2.0	ND<2.0	ND<2.0	3.0	0.69 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-14A	42 J	27 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-14B	ND<50	170	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-14C	260	120	1.2 J	2.5	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-15A	2,700	230	620	7.4	4.9 J	ND<2.0	5.1 J	ND<2.0	11 J	ND<2.0	ND<20	ND<2.0
W-15B	1,600	340	900	160	ND<20	0.99 J	ND<20	0.57 J	7.0 J	5.0	ND<20	0.70 J
W-15C	ND<50	29 J	0.94 J	1.1 J	0.57 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-16A	310	290	40	30	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-16B	400	73	48	16	ND<2.0	ND<2.0	0.33 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-16C	360	510	30	40	0.46 J	0.45 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-17A	100	78	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-17B	39 J	38 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-17C	36 J	29 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0

Notes:

All units in micrograms per liter.

Detections are bolded; maximum concentrations from duplicate samples are shown.

J = estimated concentration below reporting limit

ND< = not detected at the indicated reporting limit

TPHg = total petroleum hydrocarbons as gasoline

Table 8
Passive Hydrocarbon Recovery Summary

First Quarter 2009 Groundwater Monitoring Report
Isola Law Group, LLP
Former CENCO Refinery
Santa Fe Springs, California

Well ID	Date	Elevation (feet msl)	Depth (feet)	Depth (feet)	Elevation (feet msl)	FPPH thickness (feet)	Total length (feet)	Comments
Initial Absorbent Canister Installation								
MW-600A	2/6/2007	120.34	88.48	85.52	34.23	2.96	NA	Total length of rope and canister = 88.5 feet
EW-1	2/15/2007	112.40	98.18	98.18	14.22	Sheen	NA	Total length of rope and canister = 98.2 feet
W-3A	2/15/2007	124.00	100.66	100.66	23.34	Sheen	NA	Total length of rope and canister = 100.7 feet
MW-504	2/15/2007	134.51	91.32	91.32	43.19	Sheen	NA	Total length of rope and canister = 91.3 feet
Absorbent Sock Replacements								
MW-600A	2/6/2007	120.34	NM	NM	NM	NM	NM ⁰	Replaced ~ 5 hours after initial installation
	2/20/2007		NM	NM	NM	NM	NM ⁰	
	3/20/2007		NM	NM	NM	NM	NM ⁰	
	4/13/2007		NM	NM	NM	NM	NM ⁰	
	5/7/2007		85.61	85.49	34.83	0.12	-2.84	Canister removed for GW monitoring, then replaced
	8/6/2007		86.86	86.36	33.88	0.50	0.38	GW elevation decreased, sock was dry, and canister was lowered 2 feet
	11/5/2007		88.01	87.99	32.35	0.02	-0.48	
	2/1/2008		88.92	NA	31.42	0.00	-0.02	Canister removed following GW monitoring (no FPPH)
EW-1	3/19/2007	112.40	NM	NM	NM	NM	NM ⁰	
	4/13/2007		NM	NM	NM	NM	NM ⁰	
	5/7/2007		97.88	97.88	14.52	NA	NA	Canister removed following GW monitoring (no FPPH)
	8/10/2007		97.78	97.78	14.62	Sheen	NA	Canister returned following GW monitoring ¹
	11/2/2007		98.21	98.21	14.19	NA	NA	Canister removed
W-3A	3/19/2007	124.00	NM	NM	NM	NM	NM ⁰	
	4/13/2007		NM	NM	NM	NM	NM ⁰	
	5/7/2007		100.04	100.04	23.96	Sheen	NA	Canister removed for GW monitoring, then replaced
	8/6/2007		100.53	100.53	23.47	NM	NA	Canister removed following GW monitoring (no FPPH)
MW-504	3/19/2007	134.51	NM	NM	NM	NM	NM ⁰	
	4/13/2007		NM	NM	NM	NM	NM ⁰	
	5/7/2007		90.69	90.69	43.82	NA	NA	Canister removed following GW monitoring (no FPPH)

Notes:

⁰FPPH thickness not able to be measured, as canisters were not present the previous quarter.

¹Sheen was detected; therefore the canister was put back in the well.

Depth to groundwater measured on a quarterly basis.

Groundwater elevation = (top of casing elevation - depth to water) + (0.8 x hydrocarbon thickness).

FPPH = free-phase petroleum hydrocarbon

GW = groundwater

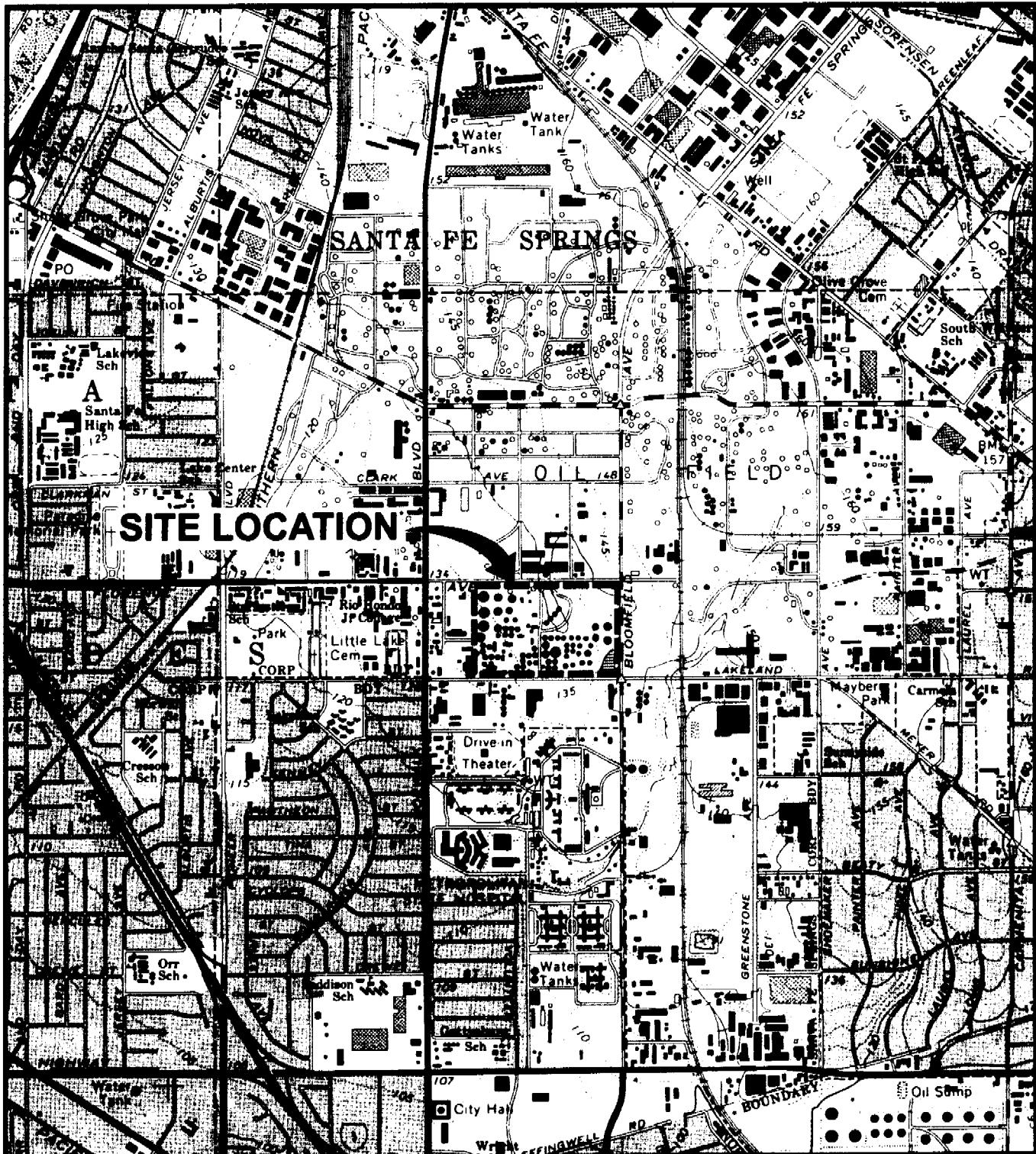
msl = mean sea level

NA = not applicable

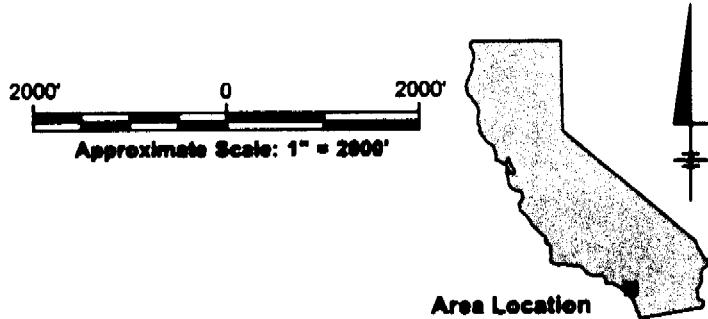
NM = not measured

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Figures



REFERENCE: BASE MAP USGS 7.5 MIN. QUAD., WHITTIER, CA. 1965, PHOTOREVISED 1981.



ISOLA LAW GROUP, LLP
FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

SITE LOCATION MAP

 ARCADIS

FIGURE 1

FX-9: Wells

FX-9: Wells

FX-9: Wells

FX-9: Wells

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Appendix A

Standard Operating Procedures

Approval Signatures

Prepared by: Milner Date: 6/09/06

Reviewed by: Sandy L. Wilg Date: 6/9/06
(Technical Expert)

Reviewed by: Sandy L. Wilg Date: 6/9/06
(Editorial Reviewer)

Reviewed by: Sandy L. Wilg Date: 6/9/06
(Quality Assurance Reviewer)

Approved by: Sandy L. Wilg Date: 6/9/06
(Project Manager)

Standard Operating Procedure: Field Sampling Equipment Decontamination

I. Scope and Application

The objective of this Standard Operating Procedure (SOP) is to describe the procedures to decontaminate non-dedicated, non-disposable sampling equipment and instruments intended for reuse. Equipment decontamination will occur prior to use on the site, between each sample location, and upon completion of the sampling program prior to leaving the site. Field sampling equipment will be decontaminated at a designated onsite or offsite equipment decontamination area, as designated by supervising field personnel. Sampling equipment may include the following:

- Soil sampling equipment such as hand augers, slide hammer samplers, direct push samplers, and split spoon samplers;
- Well construction materials;
- Soil sample sleeves;
- Water quality instruments;
- Water/product level meters; and
- Additional task-specific sampling equipment.

Equipment decontamination procedures for sampling equipment will be monitored with the collection of equipment rinsate blanks collected at a frequency of 5% or one per crew per day.

Equipment decontamination is a process of neutralization, washing, and rinsing exposed outer surfaces of equipment to minimize the potential for contaminant migration or cross-contamination. Decontamination methods include physical removal of contaminants, chemical detoxification, disinfection, and sterilization. Personnel decontamination procedures are described in the site *Health and Safety Plan (HASP)* (Blasland, Bouck & Lee, Inc., 2006). Refer to the SOP for Heavy Equipment Decontamination for the proper procedure for decontaminating large equipment.

II. Personnel Qualifications

Blasland, Bouck & Lee, Inc., an ARCADIS company (BBL), field personnel must have current health and safety training, including 40-hour Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) training, site supervisor training, site-specific training, first aid, and Cardio-Pulmonary Resuscitation (CPR), as needed. In addition, BBL field personnel must be versed in the relevant SOPs and possess the required skills and experience necessary to successfully complete the desired field work. All personnel of BBL's subcontractors are also required to have current 40-hour HAZWOPER training and first aid and CPR, as needed.

III. Equipment List

- Appropriate personal protective equipment (PPE) as specified in the HASP;

3. Clean the equipment with potable water and a scrub brush.
4. Conduct final rinsing with distilled/deionized water.
5. The equipment should be clean and dry before it is ready to be re-used on site.
6. In the case the equipment will not be used right away, wrap in aluminum foil with shiny side out for storage.

Before leaving the area where a piece of equipment has been cleaned, conduct a final check to make sure all discarded materials, including paper towels, plastic sheeting, and disposable gloves, have been picked up and placed in a properly labeled drum. At the end of the day, all personal protective equipment must be cleaned and stored on site. No contaminated clothing or equipment will be permitted to leave the site.

VII. Waste Management

Decontamination water will transported from the EDA to the onsite treatment facility to be disposed off at the end of every work day. Soil residuals generated during equipment decontamination will be placed in DOT-approved drums and labeled. Containerized waste will be disposed of consistent with appropriate procedures as outlined in the Handling and Storage of Investigation-Derived Waste SOP. Used PPE is non-hazardous and will be double-bagged and placed in a municipal refuse dumpster.

VIII. Data Recording and Management

Field equipment decontamination activities will be recorded in the field logbook.

IX. Quality Assurance

After field decontamination, equipment should be handled only by personnel wearing clean gloves to prevent recontamination. In addition, the equipment should be moved away (preferably upwind) from the cleaning area to prevent recontamination. If the equipment is not to be immediately reused, it should be covered with plastic sheeting to prevent recontamination. The area where the equipment is kept prior to reuse must be free of contaminants.

All drums shall be properly marked, labeled, stored, and disposed in accordance with the procedures identified in the HASP.

X. References

Blasland, Bouck & Lee, Inc. (BBL). 2006. *Health and Safety Plan*. Prepared for Isola and Associates, LLP, Former CENCO Refinery, Santa Fe Springs, California (January 2006).

Approval Signatures

Prepared by: Melvin Z. Date: 6/10/06

Reviewed by: Frank L. Wig Date: 6/19/06
(Technical Expert)

Reviewed by: Frank L. Wig Date: 6/19/06
(Editorial Reviewer)

Reviewed by: Frank L. Wig Date: 6/19/06
(Quality Assurance Reviewer)

Approved by: Frank L. Wig Date: 6/19/06
(Project Manager)

Standard Operating Procedure: Groundwater Sampling

I. Scope and Application

This Standard Operating Procedure (SOP) describes in detail the requirements for proper sampling of groundwater monitoring and production wells by Blasland, Bouck & Lee, Inc. (BBL) at the Former CENCO Refinery site.

II. Personnel Qualifications

Blasland, Bouck & Lee, Inc., an ARCADIS company (BBL), field sampling personnel must have current health and safety training, including 40-hour Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) training, site supervisor training, site-specific training, first aid, and Cardio-Pulmonary Resuscitation (CPR), as needed. In addition, BBL field sampling personnel must conduct all groundwater sampling activities in a manner consistent with this SOP. It is the responsibility of the project manager (PM) to ensure that the activities discussed herein are properly staffed, planned, and executed.

III. Equipment List

The following equipment is required for sampling groundwater monitoring and production wells:

1. **Water Level Meter:** This meter is used to measure the depth to water from the top of the well casing and the total depth of the well by lowering the probe all the way to the bottom.
2. **Organic Vapor Monitor (OVM):** This instrument is used to monitor the air quality in the breathing zone when opening a monitoring well. Organic vapor concentrations are expressed in parts per million (ppm).
3. **Vacuum Truck:** Groundwater sampling is conducted using a vacuum truck to purge the monitoring wells prior to sampling.
4. **Water Quality Meter(s):** The meter(s) measures water quality parameters of the groundwater prior to sampling. The meter(s) must be calibrated daily or prior to use in accordance to manufacturer instructions. Water quality parameters may include pH, temperature, conductivity, turbidity, dissolved oxygen, oxidation-reduction potential, and total dissolved solids. One or more meters may be required to measure the desired water quality parameters.
5. **Five-Gallon Buckets:** Buckets are needed to transport fluids used for decontaminating sampling equipment.
6. **Purge Water Collection Container:** Purged groundwater will be collected in this container for field parameters measurement prior to sampling. Container may be a vacuum truck, 55-gallon, drums, or a portable tank.
7. **Disposable Bailers:** These are polyethylene sample collection devices used to manually extract groundwater samples from monitoring and production wells. Cotton twine, rather than polyester, will be used to lower bailers down the wells in order to prevent static electricity.
8. **Sample Cooler:** A sample cooler is used to store the groundwater samples on wet ice at a temperature lower than 6°C until the samples are transferred to the analytical laboratory.

9. **Well Keys:** In order to gain access to selected monitoring wells, the corresponding lock keys will be obtained prior to sampling.
10. **Miscellaneous Hardware:** This includes any tools that will be needed to open the groundwater monitoring wells to be sampled, such as screw drivers and adjustable wrenches.

IV. Cautions

The breathing zone quality must be monitored for organic vapors every time a monitoring or production well is opened. This is essential to avoid exposure to high levels of toxic or combustible vapors.

Only cotton twine is to be used to lower disposable bailers down the wells to avoid fire hazard due to static.

V. Health and Safety Considerations

All personnel including subcontractors must have read, understand, and abide by all requirements stated in the site *Health and Safety Plan (HASP)* (BBL, 2006) for all site activities. All personnel will have completed 40-hour HAZWOPER training and an annual 8-hour refresher taken within the last 12 months as specified under Title 8 California Code of Regulations Section 5192.

In accordance with the BBL HASP, the following PPE is required for use when personnel are performing sampling activities at the monitoring wells.

- Hard hat, meeting ANSI Z89, when falling object hazards are present;
- Safety glasses with side shields or goggles, meeting ANSI Z87;
- Steel-toe work boots, meeting ANSI Z41;
- Work gloves, as appropriate;
- Nitrile gloves, as appropriate;
- Nomex fire retardant coveralls; and
- Full-face, National Institute for Occupational Safety and Health- (NIOSH-) approved, air-purifying respirator with organic vapor cartridges, when high levels of organic vapors are detected.

VI. Procedure

A. General

- To protect against pinch points and biological hazards, wear leather gloves when opening monitoring well covers.
- To prevent back injury while removing vault covers flush to the ground, use the vault hook.
- To prevent back injury while sampling flush wells, use a chair or equivalent.
- A site map may be required to locate the groundwater monitoring or production wells.

B. Well Head Inspection

- The well must be securely locked using a cap or lid. The purpose of the cap is for security and to keep out insects, rodents, water or anything else that might enter the well. The cap or lid should fit snuggly and be lockable and must be replaced if otherwise. A slip cap is acceptable but may only be used when there is another means available to lock the well.
- The well casing must be in a good condition, free of large cracks, cuts, holes or other defects. Also note if the casing appears bent or dislocated more than normal.
- A seal, usually made of cement, is placed between the casing and the borehole during well construction to prevent surface water or other materials from migrating down to the aquifer. The seal must be in a good condition and not severely cracked or broken. In some cases the seal may have been extended onto the ground surface around the well to form a pad.
- There should not be any standing water around the well, whether on the ground surface or within the riser or well box.
- The well must have a legible identification marking. The marking can be a tag, label, or painted on.

C. Sampling Monitoring Wells

- Prior to opening a monitoring well, a full-face respirator must be worn to protect possible organic volatiles. Open well slowly, while holding the OVM meter tip at the head of the well casing to obtain a reading. Record the reading on the Well Measurements Form. Obtain a second reading in the breathing zone, defined as that zone within an 18-inch radius of the face during operations. Record the reading on the Air Monitoring Log. Refer to Chapter 6 of the Former CENCO Refinery project HASP (BBL, 2006) for contaminant action levels.
- The water level below the top of the casing must be measured using a water level meter prior to sampling. The top of well casing is usually marked by black paint. Care must be taken to ensure that the meter probe does not become entangled in the stinger/air assist tubing of the well. Record the level to the nearest hundredth of a foot on the Well Measurements Form and Groundwater Sampling Form. Measure the total depth of the well for all wells not containing free product. Depending on the water level meter utilized, 0.3 inches must be added to the total depth of the water level reading. If a total well depth measurement cannot be obtained due to limited space within the well, an approximate depth from well construction information sheet can be used to calculate the casing and purge volume.
- The well purge volume must be calculated and recorded next. The well volume factors listed in the table below are used to calculate the bore volume and purge volume.

Well Volume Conversion Factors

Well Casing ID (inches)	Volume Factor (gal/ft)
2.0	0.1632
3.0	0.3672
4.0	0.6528
4.5	0.8260
6.0	1.4690

ID – Inside diameter
gal/ft – Gallons per foot

$$\text{Casing Volume (C), gal} = (D-L) \times V \quad (1)$$
$$\text{Calculated Purge Volume, gal} = C \times P \quad (2)$$

Where:

D = total depth (ft)

L = depth to water level (ft)

V = Well volume factor (gal/ft)

P = Number of volumes to purge = 3 (Maximum of five if readings are not stable)

With the assistance of a vacuum truck, begin purging well and collect an initial field parameter measurement and record the required field parameters as stated on the Groundwater Sampling Form (pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity). Continue collecting field parameter measurements during purging (minimum of 2 measurements per well volume purged) until a minimum of 3 casing volumes have been purged and pH, temperature, and conductivity are within 10% for the final 3 consecutive readings. If field parameters have not stabilized after five casing volumes have been purged, document the final measurements and sample. Make note of the lack of stabilization and bring to PM's attention.

- Decontaminate the field parameter probe, turn meters off and close storage cases. Decontaminate the field parameter collection container and store until next use.
- Record water level measurement following purging completion. Proceed to sampling only if the well has recharged to at least 80% of the original static water level.
- Using a disposable bailer tied to a cotton twine, sample the groundwater monitoring well, collect the samples in labeled containers, and store on ice in a cooler. The sample vials and bottles might contain preservatives depending on the analysis method. Record samples on the Chain of Custody (COC) forms.
- Replace the vault lid back on the well and lock.

NOTES

- If the well runs dry before three well casing volumes can be purged or parameters stabilized, the well is considered dewatered and should be allowed to recharge. The well is considered dry if, upon returning 24 hours later, one set of field parameters and the sample cannot be collected. If well is dry, record DRY on the Groundwater Sampling Form. If well recovery rate is $\geq 80\%$ within 24 hours of purging, take 1 set of parameters and required samples. If well recovery rate is $< 80\%$ the following day and there is enough water to sample, then it is acceptable to take one set of parameters and the required samples. Finally, if unable to fill all sample containers due to the well dewatering while sampling, it is permissible to return within 24 hours to finish filling sample containers (this may continue into another 24 to 48 hour period after original purging due to slow recovery rate). Do not re-purge the well in this case.
- The following must be noted in comments on the Groundwater Sampling Form: water level prior to sampling, time of each sampling, and percent recovery rate of the well prior to each sampling.

VII. Waste Management

All equipment utilized in groundwater monitoring and production wells must be thoroughly decontaminated with a non-phosphate detergent solution and rinsed with deionized water (decontamination solution is a 1:3

mixture of detergent and DI water). All generated purged groundwater and decontamination liquids must be transported daily to the onsite wastewater treatment facility for disposal by the end of the sampling event.

VIII. Data Recording and Management

Groundwater sampling activities must be recorded in the field logbook.

IX. Quality Assurance

All purged groundwater and decontamination fluids will be disposed of at an onsite wastewater treatment system. Containerized waste will be disposed of consistent with appropriate procedures as outlined in the Handling and Storage of Investigation-Derived Waste SOP. Used PPE is non-hazardous and will be double-bagged and placed in a municipal refuse dumpster.

All drums shall be properly marked, labeled, stored, and disposed in accordance with the procedures identified in the HASP.

X. References

Blasland, Bouck & Lee, Inc. (BBL). 2006. *Health and Safety Plan*. Prepared for Isola and Associates, LLP, Former CENCO Refinery, Santa Fe Springs, California (January 2006).

Approval Signatures

Prepared by: Melvin J. Date: 6/9/06

Reviewed by: Jeanne L. Wig Date: 6/9/06
(Technical Expert)

Reviewed by: Jeanne L. Wig Date: 6/9/06
(Editorial Reviewer)

Reviewed by: Jeanne L. Wig Date: 6/9/06
(Quality Assurance Reviewer)

Approved by: Jeanne L. Wig Date: 6/9/06
(Project Manager)

Standard Operating Procedure: Handling and Storage of Investigation-Derived Waste

I. Scope and Application

The objective of this Standard Operating Procedure (SOP) is to describe the procedures to manage investigation derived wastes (IDW) generated during drilling, well sampling, and decontamination procedures. IDW may include soil, groundwater, drilling fluids, decontamination liquids, personal protective equipment (PPE), and disposable sampling materials that may have come in contact with potentially impacted materials. All IDW will be collected at the point of generation and taken to a storage area onsite or to a disposal facility. Soil will be containerized in roll-off bins and DOT-approved drums and analyzed for constituents of concern to evaluate proper disposal methods. Contaminated groundwater, drilling fluids and decontamination liquids will be disposed off daily at an onsite wastewater treatment system and, thus, will not need to be stored. PPE and disposable sampling equipment is considered non-hazardous and will be double-bagged and placed in a municipal refuse dumpster. This SOP describes the necessary equipment, field procedures, materials, and documentation procedures necessary to do so, as well as the handling of these materials up to the time they are properly disposed. The procedures for handling IDW are based on the United States Environmental Protection Agency's *Guide to Management of Investigation Derived Wastes* (USEPA, 1992).

IDW will be managed to ensure the protection of human health and the environment and will comply with all applicable or relevant and appropriate requirements (ARAR). The following Laws and Regulations on Hazardous Waste Management are potential ARAR for this site.

State Laws

- Hazardous Waste Control Law (HWCL) Health and Safety Code §25100-25249;
- Hazardous Substance Account Act (HSAA) Health and Safety Code §25340-25392; and
- Hazardous Waste Treatment Permitting Reform Act (AB 1772) Health and Safety Code §25201.

State Regulations

- Identification and Listing of Hazardous Waste 22 California Code of Regulations (CCR) §§66261-66261.126;
- Requirements for Generators, Generally 22 CCR §§66262.10-66262.70;
- Requirements for Generators, Contingency Plan 22 CCR §§66264.50-66265.56;
- Requirements for Generators, Personnel Training 22 CCR §66265.16;
- Requirements for Transporters 22 CCR §66263; and
- Land Disposal Prohibitions 22 CCR §66268.

Federal Laws

- Resource Conservation and Recovery Act (RCRA) 42 United States Code (USC) §6901-6987;

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 42 USC §9601-9675; and
- Superfund Amendments and Reauthorization Act (SARA).

Pending characterization, IDW will be stored appropriately onsite. Under RCRA, "storage" is defined as "the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere" (40 Code of Federal Regulations [CFR] 2690.10). The onsite waste staging area will be in a secure and controlled area. Waste characterization involves sending samples for each media to a California-certified laboratory for analysis. Based on the results of previous waste characterization sampling completed at the Site, IDW is assumed to be a RCRA non-hazardous and California non-hazardous industrial waste. IDW will be classified as RCRA hazardous or California hazardous, if analytical results indicate hazardous characteristics.

If IDW exhibits RCRA hazardous characteristics, RCRA requirements will be followed for packaging, labeling, transporting, storing, and recordkeeping, as described in 22 CCR §66262.34. Wastes judged to potentially meet the criteria for hazardous wastes shall be stored in DOT-approved containers. Waste material classified as RCRA non-hazardous may be handled and disposed of as an industrial waste.

If IDW exhibits California hazardous characteristics, Title 22 of the California Code of Regulations will be followed for packaging, labeling, transporting, storing, and recordkeeping, as described in 22 CCR §66262. Waste material classified as California non-hazardous waste may be disposed of as an industrial waste. Blasland, Bouck & Lee, Inc., an ARCADIS company (BBL), is responsible for waste handling and characterization. BBL will also contract a licensed waste hauler to dispose of hazardous waste.

II. Personnel Qualifications

BBL field personnel must have current health and safety training, including 40-hour Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) training, site supervisor training, site-specific training, first aid, and Cardio-Pulmonary Resuscitation (CPR), as needed. In addition, BBL field personnel must be versed in the relevant SOPs and possess the required skills and experience necessary to successfully complete the desired field work.

III. Equipment List

- Appropriate personal protection equipment (PPE) as specified in the *Health and Safety Plan (HASP)* (BBL, 2006);
- 55-gallon steel drums, DOT 1A2 or equivalent;
- Socket wrench set;
- Hammer;
- Leather gloves;
- Drum dolly;
- Appropriate drum and bin labels (outdoor waterproof self-adhesive);
- DOT-approved roll-off bins;
- Indelible ink and/or permanent marking pens; and

- Appropriate sample containers, labels, and forms.

IV. Cautions

1. Filled drums can be very heavy; always use appropriate moving techniques and equipment.
2. Similar media must be stored in the same drums to aid in sample analysis and disposal.
3. Drum lids must be secured to prevent rainwater from entering the drums.
4. Drums containing solid material may not contain any free liquids.
5. All drums must be in good condition to prevent potential leakage and facilitate subsequent disposal. Inspect the drums for dents and rust, and verify the drum has a secure lid prior to use.

V. Health and Safety Considerations

1. Appropriate PPE must be worn by all field personnel within the designated work area, as stated in the project HASP.
2. Air must be periodically monitored during drilling and sampling activities, as required in the HASP.
3. If excavating in potentially hazardous areas is possible, contingency plans should be developed to address the potential for encountering gross contamination or non-aqueous phase liquids (NAPL).

VI. Procedure

Impacted soil generated from drilling and sampling activities will be transported in a hopper to onsite roll-off bins for storage or transferred to a 55-gallon drum. Every container must be properly labeled and covered to prevent rainwater from entering and to minimize the release of the contaminants to the surroundings. Waste materials, such as broken sample bottles or equipment containers and wrappings, will not be placed in bins or drums with soil or water.

Waste Management

Waste management efforts will focus on the minimization of IDW during the project activities. For example, aqueous-based cleaners instead of solvent-based ones must be used for the decontamination of equipment; traffic between exclusion and support zones must be minimized; and drilling methods and sampling techniques that generate relatively less waste must be adopted.

Waste Container Labeling

Outdoor, waterproof, self-adhesive labels must be used to identify drums and bins containing soil cuttings. IDW containers will be labeled as follows:

- Appropriate California waste characterization label (Testing In Progress, Hazardous, or Non-Hazardous);
- Waste generator's name (BBL);
- Project name (CENCO Former Refinery);
- Project address (12345 Lakeland Road, Santa Fe Springs, CA);
- Name and telephone number of BBL Field Manager;

- Accumulation start date; and
- Container number.

Drilling Soil Cuttings and Muds

Soil cuttings are solid to semi-solid soils generated during trenching activities, subsurface soil sampling, or installation of monitoring wells. Since direct push, hollow stem auger, and sonic rotary drilling are the techniques of choice in this project, no drilling fluids or "muds" will be used to remove soil cuttings.

Soil cuttings will be stored in 55-gallon steel drums or roll-off bins, which will be kept closed during storage and maintained in good condition in accordance with the *Guide to Management of Investigation-Derived Wastes* (USEPA, 1992).

Decontamination Solutions

Decontamination solutions are generated during decontamination of PPE and sampling equipment. Decontamination solutions may range from non-phosphate detergents (e.g. Liqui-Nox) to decontaminate small field sampling equipment to steam cleaning rinsate used to wash heavy field equipment. These solutions will be disposed of at an onsite wastewater treatment system.

Disposable Equipment

Disposable equipment includes PPE (Tyvek® coveralls, gloves, booties, and APR cartridges) and disposable sampling equipment such as disposable bailers. These materials are considered non-hazardous and will be double-bagged and disposed of in a municipal refuse dumpster.

Purge Water

Purge water includes groundwater generated during well development, groundwater sampling, or aquifer testing. The volume of groundwater generated will dictate the appropriate storage procedure. Monitoring well development and groundwater sampling may generate three well volumes of groundwater or more. This volume will be temporarily stored in vacuum truck (utilized to purge the wells) or waste containers (portable tanks or drums) prior to disposal at the onsite wastewater treatment system.

VII. Data Recording and Management

Waste characterization sample handling, packing, and shipping procedures will be documented in the field logbook. Copies of the chain-of-custody forms will be maintained in the project file. Following waste characterization, BBL will initiate disposal at the appropriate waste disposal facility.

VIII. Quality Assurance

The chain-of-custody and sample labels for waste characterization samples will be filled out in accordance with the *Additional Site Investigation Work Plan* (Haley & Aldrich, Inc., 2005).

IX. References

Blasland, Bouck & Lee, Inc. (BBL). 2006. *Health and Safety Plan*. Prepared for Isola and Associates, LLP, Former CENCO Refinery, Santa Fe Springs, California (January 2006).

California Environmental Protection Agency (CalEPA). 1995. *Representative Sampling of Groundwater for Hazardous Substances*. Guidance Manual for Ground Water Investigations (July 1995).

Haley & Aldrich, Inc. 2005. *Additional Site Investigation Work Plan, CENCO Refining Company* (May 9, 2005).

United States Environmental Protection Agency (USEPA). 1992. *Guide to Management of Investigation-Derived Wastes*. Office of Remedial and Emergency Response. Hazardous Site Control Division (January 1992).

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Appendix B

Groundwater Monitoring Field Forms

WELL MEASUREMENTS FORM

Site Name: Four Seneca Ponds
 Client: Tech Inc Corp LLC
 Project Location: San Joaquin Springs, CA

Date: 01.12.09
 Recorded By: Maher Tariq / Samir Farajeh
 Weather: Sunny, Warm (80's °F)

WELL ID	DEPTH TO WATER	TOTAL DEPTH	DEPTH TO PRODUCT	PRODUCT THICKNESS	PID (ppm)	LEL (%)	H ₂ S (ppm)	O ₂ (%)	CO (ppm)	Comments
MW-604	Dry	103.49	N/A	N/A	0	0	0	20.9	0	
MW-601A	Dry	89.99	N/A	N/A	100.9	5	0	20.9	0	
MW-605	93.79	94.26	N/A	N/A	0	0	0	20.9	0	
MW-14A	93.31	112.03	N/A	N/A	15.4	0	0	13.9	97	3rd difference from previous readings
MW-14B	91.71	166.54	N/A	N/A	0	0	0	22.2	0	
MW-14C	92.03	194.92	N/A	N/A	0	0	0	20.9	0	
MW-606	96.93	99.56	N/A	N/A	0	0	0	15.1	0	
MW-607	107.04	107.56	N/A	N/A	0	0	0	20.9	0	
MW-15A	111.38	125.56	N/A	N/A	83.3	8	0	19.1	9	
MW-15B	111.25	155.57	N/A	N/A	0	0	0	19.8	0	
MW-15C	111.46	197.66	N/A	N/A	0	0	0	18.1	0	
MW-600A	92.88	93.00	N/A	N/A	0	0	0	20.9	0	
MW-104A	90.91	100.56	N/A	N/A	0	0	0	20.9	0	
MW-204	100.60	102.59	N/A	N/A	0.4	0	0	20.9	0	
W-8	82.63	NM	N/A	N/A	0	0	0	20.9	0	



Infrastructure, environment, facilities

2 2 3

WELL MEASUREMENTS FORM

Site Name:

Four ~~City~~ Spring

Date:

01.12.09

Client:

Tesla Inc. Corp. LLC

Recorded By:

Maher Zain / Juan Francisco

Project Location:

Santa Fe Spring, CA

Weather:

Sunny, Warm (20's °F)

WELL ID	DEPTH TO WATER	TOTAL DEPTH	DEPTH TO PRODUCT	PRODUCT THICKNESS	PD (ppm)	LEL (%)	H ₂ S (ppm)	O ₂ (%)	BF (%)	COMMENTS
MW-102S	95.68	100.58	N/A	N/A	1.2	0	0	20.9	0	Strong odor
W-17A	94.03	108.23	N/A	N/A	225 >100	1	10.1	0		
W-17B	109.84	169.56	N/A	N/A	0	0	0	20.9	0	
W-17C	109.93	200.61	N/A	N/A	0	0	0	20.9	0	
MW-202	DRY	92.81	N/A	N/A	724 >100	0	12.720			
MW-103	DRY	94.92	N/A	N/A	50.3	0	0	19.9	0	
MW-205	96.15	98.48	N/A	N/A	176 >100	0	3.5	0		
MW-101	90.78	90.93	N/A	N/A	20.2 >100	0	5.4	0		
MW-201	96.89	101.49	N/A	N/A	620 15	0	20.3	0		
W-9	87.07	110.06	N/A	N/A	0 8	0	7.6	0		
MW-203	96.68	102.57	N/A	N/A	184 >100	0	7.5	0		
MW-106A	99.12	110.41	N/A	N/A	848 >100	0	0.4	0		Strong odor
MW-107A	98.56	109.43	N/A	N/A	0 35	3	0.5	10		
W-16A	106.72	123.07	N/A	N/A	528 >100	0	8.2	0		
W-16B	121.25	161.12	N/A	N/A	0 0	0	20.3	0		

Site Name:

Fever come down

Date _____

01.13.96

Client:

Tulsa Law Committee

Recorded By

卷之三

Project Location:

Santa Fe Spring, CA

Weather

Snowy Owl (Bubo scandiacus)

WELL MEASUREMENTS FORM

Site Name: SENGO R.J.

Data

91.13.50

Client: Falk Land Group Ltd

Recorded By

Mother Zain / Shan Edit

Project Location: Santa Fe Springs, CA

Weather:

Symptoms

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number Ew-1
 Well Type: Monitor Extraction Other:
 Date: 12/09 Time: 0952

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 112.35

Water Level Depth (WL in feet BTOC) 100.17

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE VOLUME CALCULATION

$$(112.35 - 100.17) \times 4^2 \times \frac{1}{6} \times 0.0408 = 10 \text{ gallons}$$

TD (feet) WL (feet) D(inches) # Vols Calculated Purge Volume

PURGE TIME

44 gallons

Start 10:00 Stop 21 Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate = 1.5 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (µS/cm or mg/L)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
10:00	8	22.4	7.99	779	0.0	278	25.3	31.42
10:41	16	22.0	7.81	779	0.0	278	18.7	
10:45	24	22.0	7.79	779	0.0	278	10.9	
10:49	32	22.1	7.77	779	0.0	278	10.9	
10:54	40	21.8	7.80	779	0.0	278	10.7	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

Low H2S and Damp air well

Amount in well = 0.15

WELL SAMPLING

Sample No.	Number Contained	Container Type	Lab	Analysis	Preservatives

Sampling Method:

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: Not Sampled

Depth to Water :

102.61 - 80%

Site Name :	Former CENCO Refinery
Project Number :	B0054205.0001.00001
Recorded by :	Maher Zeln/Jesse Estrada

Well Number MW-10-1A
Well Type Monitor Extraction Other: _____
Date: 1.15.09 Time: 1302

WELL PURGING

URGE YOUR

Casing Diameter (D in inches)

2-inch 4-inch 6-inch Other

Total Depth of Casing (TD in feet BTOC) 100.56

Water Level Depth (WL in feet BTOC) : 90.91

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____ 3

Bailer - Type

Submersible Centrifugal Bladder

Other -Type Vacuum Truck

$$\frac{(100.56 - 90.91)}{\text{TD (feet)}} \times \frac{4}{\text{WL (feet)}} \times \frac{1}{\text{D (inches)}} \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{6.2}{\text{Calculated Purge Volume}} \text{ gallons}$$

1305 Start 1322 Stop □ Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate = 0.4 gpm

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

etc) : WELL DRY AFTER Purging.
Sampled on 1/16/09 (14/5)

WELL SAMPLING

SAVANNAH MELTHORPE

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : **Disposable**

Sampling Time (80%) Recharge: 1415 (1,1609)

Depth to Water: 90.91 (1.16.09)

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zain/Jesse Estrada

Well Number 11W-105
 Well Type: Monitor Extraction Other:
 Date: 1.15.09 Time: 1428

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 100.58

Water Level Depth (WL in feet BTOC) : 95.68

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

$$\frac{(\text{TD} - \text{WL})}{\text{D(inches)}} \times \frac{4}{\text{D(inches)}} \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{3.2}{\text{Calculated Purge Volume}} \text{ gallons}$$

(100.58 - 95.68) 4 1 0.0408 = 3.2 gallons
 TD (feet) WL (feet) D(inches) # Vols

(49)

21 gallons

130 Start 150 Stop 20 Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate = 1.05 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or uS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1435	4	23.0	7.29	2.43	2.50	-84	146	
1440	8	22.1	7.18	2.43	2.10	-92	72.8	
1442	12	21.9	7.21	2.42	2.54	-110	36.1	
1445	16	22.1	7.19	2.42	1.97	-110	10	
1450	20	22.3	7.14	2.41	1.51	-110	5.1	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

SLIGHTLY TURBID.

WELL SAMPLING

SAMPLING TIME (80%)

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1500

Depth to Water : 95.68

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number Mu-106A
 Well Type Monitor Extraction Other:
 Date: 1/17/09 Time: 10:14

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 110.41

Water Level Depth (WL in feet BTOC) 09.12

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____ 3

PURGE VOLUME CALCULATION

$$\frac{(TD \text{ (feet)}) - (WL \text{ (feet)})}{(D \text{ (inches)})} \times \frac{4}{1} \times \frac{1}{\$ \text{ Vols}} \times 0.0408 = \frac{7.3}{\text{Calculated Purge Volume}} \text{ gallons}$$

VOLUME ENTERED
33 gallons

1020 Start Stop Elapsed

Initial gpm Final gpm Initial Hz Final Hz

Average Purge Rate = 117 gpm

Time	Volume (gallons)	Temp (°C)	pH	EG (ms/cm or mV)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1023	8	22.0	7.8	2416	220	54	19	110.41
1028	16	22.5	7.72	2443	146	32	6.0	11
1037	24	22.0	7.76	2416	204	35	6.0	10.41
1045	32	21.9	7.75	2445	210	39	0.0	1

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) : Cloudy

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING
SAMPLING INSTRUMENTS

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 100 (7)

Depth to Water : 100.7

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number MW-107A
 Well Type: Monitor Extraction Other:
 Date: 11/09 Time: 11:10

WELL PURGING

PURGE VOLUMES

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 109.63

Water Level Depth (WL in feet BTOC) 98.56

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE METHODS

Bailer - Type _____

Submersible Centrifugal Bladder

Other - Type Vacuum Truck

PURGE VOLUME CALCULATIONS

$$(109.63 - 98.56) \times 4 \text{ ft} \times \frac{1}{4 \text{ in}} \times 0.0408 = 7.1 \text{ gallons}$$

Calculated Purge Volume

VOLUME REMAINING

33 gallons

Start 1132 Stop 1149 Elapsed 17 minutes

PURGE RATE

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate = 1.7 gpm

WELL PURGING RECORDS

Time	Volume (gallons)	Temp (°C)	pH	EC (mV/cm or mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
11:19	8	22.1	7.63	248	7.5	-256	0.0	Clean
11:23	16	22.1	7.66	244	8.2	-216	0.0	
11:26	24	22.2	7.69	248	7.6	-256	0.0	
11:28	32	22.9	7.19	247	7.6	-257	0.0	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

Start 1132 Stop 1149

Elapsed 17 minutes

WELL SAMPLING

SAMPLE INSTRUMENTATION

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1135(14)

Depth to Water: 98.65

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zeln/Jesse Estrada

Well Number MW-Z01
 Well Type Monitor Extraction Other:
 Date: 120-09 Time: 1256

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 101.49

Water Level Depth (WL in feet BTOC) : 96.89

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE METHOD

Bailer - Type _____

Submersible Centrifugal Bladder

Other - Type Vacuum Truck

PURGE VOLUME CALCULATION

$$\left(\frac{TD - WL}{D} \right) \times \frac{4}{D}^2 \times \frac{1}{# Vols} \times 0.0408 = \frac{20}{Calculated Purge Volume} \text{ gallons}$$

VOLUME GENERATED

21 gallons

1200 Start 125 Stop 15 Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate = 14 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (microm or mV)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water-level
1200	4	23.0	7.86	3.46	0.23	-55	6.7	0.544D
1205	8	23.	7.7	2.15	0.23	-55	6.7	0.544D
1210	12	22.5	7.23	2.16	0.23	-55	6.7	0.544D
1212	14	22.6	7.2	2.15	0.23	-55	6.7	0.544D
1215	20	23.2	7.20	2.15	0.23	-55	7.4	0.544D

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING

SAMPLE INFORMATION

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1320(7)

Depth to Water 96.95

97.81-807

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number MW-203
 Well Type: Monitor Extraction Other:
 Date: 11/19/09 Time: 0849

WELL PURGING

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 102.57

Water Level Depth (WL in feet BTOC) : 96.68

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE VOLUME CALCULATION

$$\frac{(TD \text{ (feet)} - WL \text{ (feet)})}{D(\text{inches})} \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{3.8}{\text{Calculated Purge Volume}} \text{ gallons}$$

VOLUME GENERATED

70 gallons

0834 Start Step 61 Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate = 0.32 gpm

Observations

Time	Volume (gallons)	Temp (°C)	pH	EC (mV/cm natural)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water level
0837	7	20.9	7.90	2962	0.70	4	420	96.9
0900	8	20.3	7.65	281	0.8	7	330	
0913	2	19.8	7.73	295	2.82	5	340	
0932	16	14.4	7.69	29	0.6	52	0.0	
0952	19	15.3	7.71	290	0.2	52	0.0	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility Today Waste water Slow

WELL SAMPLING

SAMPLING TIME

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1200 (7)

Depth to Water : 97.18
97.8 80%

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number MW-205
 Well Type: Monitor Extraction Other: _____
 Date: 11/19/09 Time: 0720

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 98.48

Water Level Depth (WL in feet BTOC) : 96.15

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE VOLUME CALCULATION

$$\frac{TD \text{ (feet)} - WL \text{ (feet)}}{D \text{ (inches)}} \times \frac{4}{\pi} \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{1.5}{\text{Calculated Purge Volume}}$$

2.33

13 gallons

0720 Start 0720 Stop 0720 Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate 6.65 gpm
2200 liters

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or uS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0733	2	19.0	6.80	265	1.58	-108	16.5	016.2
0736	4	21.1	7.25	260	1.64	-103	9.2	
0739	6	21.5	7.50	2.59	1.79	-77	5.5	
0742	8	21.6	7.64	2.64	1.72	-59	5.3	
0745	10	21.1	7.61	2.64	1.6	-61	1.2	
0747	2	21.1	7.71	2.64	1.75	-69	1.8	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) : Clear

Discharge Water Disposal: Onsite treatment facility

Close P.

NO DISCHARGE EPA APPROVED

WELL SAMPLING
SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 0800 (12)

Depth to Water: 96.35

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

MW-205 019 (Brookhaven)

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zain

Well Number MW-538
 Well Type Monitor Extraction Other: _____
 Date: 01.21.09 Time: 13:00

WELL PURGING

PURGE VOLUMES

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 109.05

Water Level Depth (WL in feet BTOC) 18.71

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE VOLUME CALCULATION

$$\frac{(TD - WL)}{D} \times \frac{4}{1}^2 \times \frac{1}{# Vols} \times 0.0408 = \frac{109.05 - 18.71}{4} \times \frac{4}{1}^2 \times \frac{1}{3} \times 0.0408 = 6.75 \text{ gallons}$$

PURGE DELIVERY RATE

30 gallons

Start 13:02 Step 1 Elapsed

Initial gpm Final gpm Initial Hz Final Hz

Average Purge Rate = 1.88 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or ppm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
13:06	7	22.99	8.06	1.7	3.26	-107	28.16	
13:08	14	21.54	8.10	1.2	4.08	-125	12.1	
13:13	21	22.55	8.04	1.12	4.09	-131	7.1	
13:17	28	22.35	8.05	1.12	4.52	-139	2.5	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) : Sheen

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING

SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 13:45

Depth to Water: 98.86 ↴ bog

MW-538-0106

Sample No.	Number of Containers	Container Type	Lab	Analysts	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zain/Jesse Estrada

Well Number Mw-600A
 Well Type: Monitor Extraction Other: _____
 Date: 11/15/09 Time: 1230

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 93.00

Water Level Depth (WL in feet BTOC) : 92.88

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____ 3

PURGE VEHICLE

Baller - Type _____

Submersible Centrifugal Bladder

Other - Type _____ Vacuum Truck

PURGE VOLUME CALCULATION

$$\frac{TD(\text{feet}) - WL(\text{feet})}{D(\text{inches})} \times 4 \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{\text{Calculated Purge Volume}}{gallons}$$

(0.12)

VOLUME GENERATED

gallons

Start _____ / Stop _____ / Elapsed _____

Initial _____ / gpm Final _____ / gpm

Initial _____ / Hz Final _____ Hz

Average Purge Rate = _____ gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (mS/cm or µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

WELL DRY . Not Sampled

WELL SAMPLING

SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge:

Depth to Water :

Sample No.	Number Container	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jease Estrada

Well Number MW-6-3
 Well Type: Monitor Extraction Other: _____
 Date: 01.13.09 Time: 0745

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 93.93

Water Level Depth (WL in feet BTOC) : 92.84

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____ 3

PURGE VOLUME CALCULATION

$$(\frac{93.93 - 92.84}{50}) \times 4^2 \times \frac{1}{1} \times 0.0408 = \frac{5.22}{\text{Calculated Purge Volume}} \text{ gallons}$$

VOLUME GENERATED

36 gallons

PURGE TIME

0753 Start 0828 Stop 0825 Elapsed

Initial gpm Final gpm Initial Hz Final Hz

Average Purge Rate = 1.92 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or <u>voltage</u>)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0757	4	18.8	7.63	2.35	2.44	137	>999	
0802	8	19.3	7.48	2.33	3.48	127	>999	
0805	13	20.0	8.03	2.32	3.88	126	>999	
0811	20	19.6	8.25	2.33	4.10	117	457	
0820	28	19.7	8.06	2.32	3.43	127	293	
0827	35	20.0	8.05	2.31	4.32	129	304	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING

SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 0828

Depth to Water: 92.86 to 20f

MW-6-3-0109

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

Site Name : Former CENCO Refinery
Project Number : B0054205.0001.00001
Recorded by : Maher Zein/Jesse Estrada

Well Number HIV-655
Well Type **Monitor** Extraction Other: _____
Date: 51.13.79 Time: 1002

WELL PURGING

PURE VOLUME

Casing Diameter (D in inches)

2-inch 3-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 9,142

Water Level Depth (WL in feet BTOC) : 93.79

Number Of Well Volumes to be Purged (# Vols)

BRUNNEN

Bailer - Type _____

Submersible Centrifugal Bladder

Other -Type Vacuum Truck

4 5 10 Other _____ 3

$$\frac{(\text{QD} - \text{Q37Q})}{\text{WD} (\text{feet})} \times \frac{4}{\text{D} (\text{inches})^2} \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{0.31}{\text{Calculated Purge Volume}} \text{ gallons}$$

100% Start 0 Stop 5 Elapsed

1995 Start Stop Elapsed

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Digitized by srujanika@gmail.com

Average Purge Rate = _____ gpm

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING

EXAMINER'S COMMENTS

01.13.29

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : **Disposable**

Sampling Time (

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number MW 606
 Well Type: Monitor Extraction Other:
 Date: 01.13.09 Time: 2900

WELL PURGING
PURGE VOLUME

Casing Diameter (D in Inches) _____

2-inch 4-inch 3-inch Other _____

Total Depth of Casing (TD in feet BTOC) 99.56

Water Level Depth (WL in feet BTOC) : 91.13

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE VOLUME

Bailer - Type _____

Submersible Centrifugal Bladder

Other - Type _____ Vacuum Truck

PURGE VOLUME CALCULATION

$$(99.56 - 91.13) \times \frac{4}{4}^2 \times \frac{1}{1} \times 0.0408 = \frac{17.2}{\text{Calculated Purge Volume}} \text{ gallons}$$

VOLUME OF PUMP

13 gallons

2.43

09:57 Start 09:59 Stop 01 Elapsed

Initial _____ gpm Final _____ gpm

Initial _____ Hz Final _____ Hz

Average Purge Rate = 0.68 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (mS/cm or ppm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0910	2	19.1	7.05	2.12	4.5	140	264	
0912	4	19.0	7.04	2.10	4.5	152	467	
0917	6	19.3	7.05	2.00	4.8	151	120	
0919	8	19.7	7.03	2.13	5.0	153	81.0	
0922	10	19.4	7.05	2.22	3.4	155	47.0	
0924	12	19.5	7.02	4.00	4.5	113	29.5	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

Discharge to Pumping Well

WELL SAMPLING
SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 0945

Depth to Water: 97.02 40 ft

MW-606-0109

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservative

Site Name :	Former CENCO Refinery
Project Number :	B0054205.0001.00001
Recorded by :	Maher Zein/Jesse Estrada

Well Number MW-657
Well Type Monitor Extraction Other:
Date: 8-13-21 **Time:** 10:35

WELL PURGING

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Casing Diameter (D in inches)

2-inch 4-inch 6-inch Other

Total Depth of Casing (TD in feet BTOC) 107.54

Water Level Depth (WL in feet BTOC): 103.36

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURCHASED

Bailer - Type _____

Submersible Centrifugal Bladder

Other -Type **Vacuum Truck**

$$\frac{(\text{TD} - \text{WL})X}{D(\text{inches})} \times \frac{\# \text{ Vols}}{1} \times 0.0408 = \frac{0.34}{\text{Calculated Purge Volume}} \text{ gallons}$$

1238 Start 1243 Stop 2 Elapsed

Initial 01022-12000 **With** 01022-12000

Average Purge Rate = _____ gpm

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING

SEARCHINGMETHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : **Disposable**

Sampling Time (s)

Sample No.	Number of Containers	Container Type	Lab	Analysis	Preservatives

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-1
 Well Type: Monitor Extraction Other: _____
 Date: 1/20/09 Time: 0700

WELL PURGING

PURGE VOLUME (TD)

PURGE METHOD

Casing Diameter (D in inches) _____

Baller - Type _____

2-inch 4-inch 6-inch Other _____

Submersible Centrifugal Bladder

Total Depth of Casing (TD in feet BTOC) 129.87

Other -Type Vacuum Truck

Water Level Depth (WL in feet BTOC) : 105.51

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____ 3

PURGE VOLUME (TD * TD * # Vols)

VOLUME OF RECHARGE

$$(129.87 - 105.51) \times 4^2 \times \frac{1}{6} \text{ inches} \times 0.0408 = 15.9 \text{ gallons}$$

Calculated Purge Volume

$$81 \text{ gallons}$$

0711 Start ~~0709~~ Stop 49 Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate = 165 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (mS/cm or mV/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0719	16	17.7	7.51	3.18	0.10	-34	1.79	3.54 NTU
0728	32	20.4	7.79	3.09	0.02	-78	1.62	
0726	48	19.4	7.91	3.09	0.10	-30	1.56	
0715	64	19.4	7.90	3.13	0.09	-82	1.6	
0754	80	20.5	7.92	3.04	0.01	-92	2.4	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

WATER SAVING

WELL SAMPLING

W-1-0109

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 0805 (14)

Depth to Water : 105.22

(10.33-80%)

Sample No.	Number Contained	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-4
 Well Type: Monitor Extraction Other: _____
 Date: 1/10/01 Time: 1241

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 129.86

Water Level Depth (WL in feet BTOC) : 105.86

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE VOLUME CALCULATION

$$(129.86 - 105.86) \times \frac{4}{6} \times \frac{1}{1} \times 0.0408 = \frac{18.6}{\text{Calculated Purge Volume}} \text{ gallons}$$

65 gallons

PURGE TIME

148 Start 120 Stop 17 Elapsed

PURGE RATE

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate: 0.63 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (mS/cm or µmho)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
121	6	24.8	7.0	253	0.72	-39	215	0.63 NTU
129	32	23.5	7.2	218	0.50	15	412	
138	48	23.1	7.3	259	0.60	16	748	
1429	64	23.7	7.28	278	0.61	54	612	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

Clear, no change seen.

WELL SAMPLING
SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1505(7)

Depth to Water: 110.05

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-8
 Well Type: Monitor Extraction Other: _____
 Date: 01.13.09 Time: 1515

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) N/A

Water Level Depth (WL in feet BTOC) 22.43

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____

PURGE VOLUME CALCULATION

TD (feet)	WL (feet)	D(inches)	# Vols	Calculated Purge Volume
		X	X	0.0466

WEIGHT AND DENSITY

gallons

PURGE RATE

Start _____ Stop _____ Elapsed _____

Initial _____ gpm Final _____ gpm Initial Hz _____ Final Hz _____

Average Purge Rate = _____ gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or µs/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level

Observations During Purging (Turbidity, Color, Odor, Well Condition etc):

Discharge Water Disposal: Wastewater facility

NA

NA

WELL SAMPLING

SAMPLING POINTS

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Boiler Type : Disposable

Sampling Time (80%) Recharge: 1515

Depth to Water: 22.43 \downarrow bog

W-8-0109

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-9
 Well Type: Monitor Extraction Other:
 Date: 11/15/09 Time: 1325

WELL PURGING

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 110.06

Water Level Depth (WL in feet BTOC) : 87.07

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

Bailer - Type _____

Submersible Centrifugal Bladder

Other - Type Vacuum Truck

$$\frac{(\text{TD} - \text{WL})}{\text{D}} \times \frac{2}{\text{D}} \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{3.75}{\text{Calculated Purge Volume}}$$

(72.99)

17 gallons

1330 Start 1355 Stop 25 Elapsed

Initial _____ gpm Final _____ gpm Initial _____ Hz Final _____ Hz

Average Purge Rate = 0.68 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or µs/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1338	4	24.9	7.23	2.71	1.98	-98	211	
1344	8	25.0	6.97	2.76	1.95	-136	17.4	
1349	12	24.6	6.99	2.79	1.88	-147	11	
1355	6	24.5	7.05	2.77	1.79	-160	25	
								c

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

turbid

WELL SAMPLING

W-9-0109

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1400

Depth to Water : 87.18

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-10
 Well Type: Monitor Extraction Other: _____
 Date: 120-09 Time: 1338

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 110-41

Water Level Depth (WL in feet BTOC) : 95.19

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE VOLUME (CALCULATED)

$$\frac{(\text{TD feet}) - (\text{WL feet})}{\text{D(inches)}} \times \frac{\pi}{4} \times \frac{1}{\text{# Vols}} \times 0.0408 = \frac{2.5}{\text{Calculated Purge Volume}} \text{ gallons}$$

(15.22)

13 gallons

13 Start 13 Stop 13 Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate 0.24 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (mV/cm or mS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1357	3	23.0	6.72	2.83	0.0	-14	10	10.0
1447	6	23.1	6.83	3.02	0.0	-20	10	10.0
1514	8	23.5	6.83	2.66	0.0	-5	10	10.0
1535	12	23.3	6.83	2.95	0.0	-15	10	10.0

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

TURBID TO CHARGE slow
20 min to 10 NTU

WELL SAMPLING

SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1 h 45

Depth to Water: 96.06 ft bng
5.723 ft 80%

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0064205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-12
 Well Type: Monitor Extraction Other: _____
 Date: 12/09 Time: 1147

WELL PURGING

PURGE VARIANTS

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 115.97

Water Level Depth (WL in feet BTOC) : 100.51

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____

3

PURGE VOLUME CALCULATIONS

$$\frac{((15.97 - 100.51) \times 2)}{\text{TD (feet)}} \times \frac{1}{\text{D (inches)}} \times 0.0408 = \frac{2.4}{\text{Calculated Purge Volume}}$$

(15.46)

115.2 Start 1215 Stop 1223 Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz
 Average Purge Rate = 0.69 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (mS/cm or µmho)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1158	3	25.7	7.30	251	0.0	-126	7.07	100.51
1201	6	25.0	7.11	250	0.0	-146	9.47	
1205	9	24.0	7.04	250	0.0	-144	7.15	
1209	12	23.9	7.05	251	0.0	-147	3.95	
1214	15	23.9	10.87	252	0.0	-152	2.09	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

Water clarity
no odor

WELL SAMPLING

SAMPLE NUMBERING

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1220 (7)

Depth to Water : 100 - 60

(103.6) - 60

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

W-12-0109

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-14A
 Well Type: Monitor Extraction Other: _____
 Date: 01.07.09 Time: 1130

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

4 inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 123.8

Water Level Depth (WL in feet BTOC) : 93.3

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____ 3

PURGE VOLUME (TD X WL X D / # Vols)

$$(\frac{123.8 - 93.3}{18.77}) \times \frac{4}{4} \times \frac{4}{4} \times 0.0408 = \frac{\text{Colorimetric Purge Volume}}{\text{gallons}} \quad | 3 \quad \text{gallons}$$

PURGE TIME

Start 00:00 Stop 24 Elapsed

PURGE RATE

Initial 0 gpm Final 0 gpm Initial 0 Hz Final 0 Hz

Average Purge Rate = 0.54 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or ppm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1147	2	24.3	7.52	2.31	3.12	113	125	
1150	4	23.5	7.54	2.35	3.56	80	64.8	
1157	8	23.2	7.68	2.33	3.65	23	4.5	
1202	12	22.8	7.54	2.27	4.71	25	2.7	
1203	12	23.1	7.56	2.26	4.25	27	3.1	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING
SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1215

Depth to Water : 93.20 44 20

Sample No.	Number of Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-14B
 Well Type Monitor Extraction Other: _____
 Date: 5/13/09 Time: 12:27

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 144.54

Water Level Depth (WL in feet BTOC) : 94.31

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE VOLUME CALCULATION

$$\frac{(\text{TD} - \text{WL})}{\text{TD} (\text{feet})} \times \frac{\pi}{4} \times \frac{1}{\text{D} (\text{inches})} \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{12.21}{\text{Calculated Purge Volume}} \text{ gallons}$$

37 gallons

Start 12:15 Stop 14:15 Elapsed 2 hours

Initial open Final closed gpm

Initial Hz Final Hz

Average Purge Rate = 0.55 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (µs/cm or mg/cm³)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1237	10	22.7	7.69	2.01	4.08	-12	4.3	
1347	13	21.9	7.73	2.01	3.91	-20	14.8	
1353	20	22.5	7.79	2.03	4.00	-19	16.7	
1319	25	23.3	7.77	2.03	3.73	-18	10.2	
1400	37	23.8	7.77	2.01	3.88	-19	4.3	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) : CLEAR

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING
SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1415

Depth to Water: 92.05 ft 30p

W-14B0109

Sample No.	Number Contained	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jease Estrada

Well Number W-14C
 Well Type: Monitor Extraction Other: _____
 Date: 1.14.09 Time: 0705

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 194.92

Water Level Depth (WL in feet BTOC) 92.03

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE VOLUME CALCULATION

$$\frac{(\text{TD feet}) - (\text{WL feet})}{\text{D (inches)}} \times \frac{\pi}{4} \times \frac{1}{\text{# Vols}} \times 0.0408 = \frac{16.18}{\text{Calculated Purge Volume}} \text{ gallons}$$

(194.92 - 92.03) / 2 x 3.14 / 4 x 0.0408 = 16.18 gallons

59 gallons

0710 Start 0741 Stop 15 Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate = 0.39 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or mV)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0755	17	14.5	7.10	2.03	2.90	72	15.5	
0834	32	15.6	7.72	1.98	2.87	-5	8.3	
0910	48	17.4	7.82	1.96	2.88	-58	6.1	
0940	58	18.6	7.99	1.97	2.93	-43	6.6	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

CLEAR

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING
SAMPLE NUMBER

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 0950

Depth to Water: 92.16

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0064206.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-15A
 Well Type: Monitor Extraction Other: _____
 Date: 11/14/09 Time: 1104

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 125.56

Water Level Depth (WL in feet BTOC) : 111.38

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE METHOD

Bailer - Type _____

Submersible Centrifugal Bladder

Other - Type Vacuum Truck

PURGE VOLUME CALCULATION

$$\frac{(125.56 - 111.38)}{\text{TD (feet)}} \times \frac{2}{\text{D (inches)}} \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{2.31}{\text{Calculated Purge Volume}} \text{ gallons}$$

141.18

WELL RECHARGE RATE

16 gallons

1110 Start 1200 Stop 50 Elapsed

Initial _____ gpm Final _____ gpm Initial _____ Hz Final _____ Hz

FIELD PARAMETERS

Average Purge Rate = 0.32 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or µs/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1123	3	23.4	7.54	2.55	1.46	-145	>999	1
1130	6	21.1	7.23	2.55	0.98	-161	>999	1
1140	9	21.7	7.26	2.55	0.40	-180	>999	1
1149	12	21.6	7.33	2.52	0.97	-160	>999	1
1159	15	21.3	7.41	2.55	0.99	-175	>999	0

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) : TRUBID.

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING
SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1205

Depth to Water: 111.43

W-15A-0109

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zain/Jesse Estrada

Well Number W-15B
 Well Type: Monitor Extraction Other: _____
 Date: 11/4/09 Time: 1253

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 155.57

Water Level Depth (WL in feet BTOC) : 111.25

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____ 3

PURGE VOLUME CALCULATION

$$\frac{(155.57 - 111.25) \times 2}{\text{TD (feet)}} \times \frac{1}{\text{D (inches)}} \times \frac{1}{\text{# Vols}} \times 0.0408 = \frac{7.23}{\text{Calculated Purge Volume}}$$

(44.32)

125 Start 150.5 Stop 130 Elapsed MM

Initial _____ gpm Final _____ gpm Initial _____ Hz Final _____ Hz

Average Purge Rate = 0.22 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or mV)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1322	8	24.1	7.34	2.49	1.76	34	194	
1348	16	22.9	7.13	2.50	1.67	73	61.1	
1421	24	23.5	7.10	2.50	1.58	71	40.6	
1300	28	22.7	7.33	2.48	1.72	87	>999	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

TURBID.

WELL SAMPLING
SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1510

Depth to Water : 108.45

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : BQ054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-15C
 Well Type: Monitor Extraction Other:
 Date: 1.15.09 Time: 0700

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 197.66

Water Level Depth (WL in feet BTOC) : 111.46

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE METHOD

Bailer - Type _____

Submersible Centrifugal Bladder

Other - Type Vacuum Truck

PURGE VOLUME (CALCULATED)

$$\frac{(\text{TD (feet)} - \text{WL (feet)})}{\text{D (inches)}} \times 2^2 \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{141.0}{\text{Calculated Purge Volume}}$$

gallons

VOLUME RECHARGE

46 gallons

(80%)

0710 Start 1050 Stop 220 Elapsed

PURGE RATE

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate = 0.21 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or mV)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0817	14	16.6	7.51	2.72	1.80	27	270	
0916	28	17.8	7.97	2.16	1.20	59	240	
0956	38	20.3	7.91	2.18	1.68	61	161	
1044	45	22.0	8.00	2.15	1.80	103	85.3	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

TURBID. POSSIBLE ACCUMULATED SILT AT BOTTOM OF WELL.

WELL SAMPLING
SAMPLING SITE (LOC)

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1055

Depth to Water: 111.15

W-15C-0109

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

Site Name : Former CENCO Refinery
Project Number : B0054205.0001.00001
Recorded by : Maher Zeln

Well Number W-16A
Well Type: Monitor Extraction Other:
Date: 01/21/00 Time: 0933

WELL PURGING

RURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other

Total Depth of Casing (TD in feet BTOC) 123.57
Water Level Depth (WL in feet BTOC) : 104.72

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____ 3

BURGESS' ENTOMOLOGICAL MUSEUM

$$(\text{TD (feet)} \times \text{WL (feet)} \times \frac{\pi}{4} \times \text{D (inches)}^2) \times \# \text{ Vols} \times 0.0408 = \frac{\text{Calculated Purge Volume}}{\text{Purge Volume}} \text{ gallons}$$

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Start Stop Elapsed

Initial ppm Final ppm Initial mg Final mg

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Average Purge Rate = 0.28 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or mTDS)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0751	3	18.6	7.18	2.62	0.00	74	423	
0753	6	18.6	7.29	2.89	0.22	163	322	
0810	9	18.8	7.97	2.87	0.00	140	234	
0821	12	18.6	8.13	2.80	0.53	177	146	
0833	15	18.6	8.11	2.85	0.00	97	19.1	
0844	18	18.3	8.13	2.85	0.22	95	83	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING

SAMPLING METHODS

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Baller Type : **Disposable**

Sampling Time (80%) Recharge: 99%

Depth to Water : 108.11 ft 8m

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zain

Well Number W-16B
 Well Type: Monitor Extraction Other: _____
 Date: 01/21/09 Time: 0425

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 160.12

Water Level Depth (WL in feet BTOC) : 152.25

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other 3

PURGE VOLUME CALCULATION

$$\frac{TD \text{ (feet)}}{D \text{ (inches)}} \times \frac{WL \text{ (feet)}}{D \text{ (inches)}} \times \frac{1}{2} \times \frac{1}{\pi} \times \frac{1}{4} \times \frac{1}{4} \times 0.0408 = \frac{6.34}{\text{Calculated Purge Volume}} \text{ gallons}$$

38.87

VOLUME GENERATED

222 gallons

PURGE TIME
PURGE RATE
CONTROLLER SETTING

Initial _____ gpm Final _____ gpm Initial _____ Hz Final _____ Hz

Average Purge Rate = 0.37 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (mS/cm or µmho)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0953	6	20.1	8.38	3.32	0.2	-127.00		
0955	13	20.1	8.37	3.27	0.2	-127.00		
1013	18	20.2	8.39	2.93	3.21	-191.00		
1023	21	20.3	8.39	2.86	3.39	-192.00		

slightly bluish

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

Maximum H2S value, Clear water, no odor.

WELL SAMPLING

W-16B - 0129

Sample No.	Number Containers	Container Type	Lab	Analyses	Preservatives

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein

Well Number W-16C
 Well Type Monitor Extraction Other: _____
 Date: 01/21/09 Time: 11:25

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 196.22

Water Level Depth (WL in feet BTOC) : 121.44

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____ 3

PURGE VOLUME CALCULATION

$$\frac{(TD - WL)^3}{D(\text{inches})} \times \# \text{ Vols} \times 0.0408 = \frac{12.28}{\text{Calculated Purge Volume}} \text{ gallons}$$

75.28

VOLUME GENERATED

38 gallons

PURGE TIME

10:41 Start 12:21 Stop 7:7 Elapsed

PURGE RATE

Initial _____ gpm Final _____ gpm Initial _____ Hz Final _____ Hz

PURGE BAROMETRIC PRESSURE

Average Purge Rate = 0.49 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or _____)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
11:3	7	21.13	7.82	0.06	3.28	-261	43.6	
11:32	14	20.58	8.36	0.99	4.18	-245	3.2	
12:1	25	21.14	8.42	0.96	4.94	-252	3.4	
12:09	33	21.71	8.54	0.96	4.35	-246	0.0	
12:19	37	21.83	8.51	0.98	3.87	-249	1.2	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

38 m, S color

WELL SAMPLING

SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 12:45

Depth to Water : 121.75 ↳ bgs.

W-16C - 109

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number MW-17A
 Well Type: Monitor Extraction Other: _____
 Date: 11/16/09 Time: 0700

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 108.23

Water Level Depth (WL in feet BTOC) : 94.03

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____ 3

PURGE METHOD

Bailer - Type _____

Submersible Centrifugal Bladder

Other -Type _____ Vacuum Truck

PURGE VOLUME CALCULATIONS

$$\frac{(108.23 - 94.03) \times 2}{TD (feet)} \times \frac{2}{D (inches)} \times \frac{1}{# Vols} \times 0.0408 = \frac{2.3}{Calculated Purge Volume}$$

VOLUME DURING PURGING

16 gallons

0700 Start 0800 Stop 50 Elapsed

Initial _____ gpm Final _____ gpm Initial _____ Hz Final _____ Hz

Average Purge Rate = 0.32 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0721	3	13.9	7.50	255	0.70	103	21.7	
0730	6	16.3	7.90	247	0.81	72	26.8	
0740	9	16.2	7.99	240	0.79	59	19.0	
0748	12	16.2	8.01	244	0.78	60	14.4	
0758	15	16.2	8.04	241	0.82	30	10.7	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING

SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 0805

Depth to Water: 94.20

MW-17A-0109

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W-17B
 Well Type: Monitor Extraction Other:
 Date: 11/16/09 Time: 0837

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 169.56

Water Level Depth (WL in feet BTOC) : 109.84

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____

PURGE VOLUME (CALCULATED VOLUME)

$$\frac{(\text{TD feet}) - (\text{WL feet})}{\text{D(inches)}} \times \frac{2}{\text{# Vols}} \times 0.0408 = \frac{\text{Calculated Purge Volume}}{9.7} \text{ gallons}$$

PURGE VOLUME (PUMPED VOLUME)

41 gallons

PURGE TIME (TIME TO PUMP)

0840 Start 1205 Stop 205 Elapsed 120 minutes

Initial _____ gpm Final _____ gpm Initial _____ Hz Final _____ Hz

PURGE RATE (PURGE VOLUME / TIME)

Average Purge Rate = 0.2 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
0923	10	16.9	8.21	192	0.94	-100	40.8	
1020	20	17.4	8.23	191	1.24	-111	3.7	
1103	30	21.2	8.17	189	1.30	-107	41.4	
1138	35	23.6	8.06	191	1.93	-74	3.6	
1205	40	24.3	8.09	191	1.70	-60	8.1	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

WELL SAMPLING
SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 1210

Depth to Water : 109.72

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

GROUNDWATER SAMPLING FORM

Site Name : Former CENCO Refinery
 Project Number : B0054205.0001.00001
 Recorded by : Maher Zein/Jesse Estrada

Well Number W1-17C
 Well Type: Monitor Extraction Other:
 Date: 1.16.09 Time: 1250

WELL PURGING
PURGE VOLUME

Casing Diameter (D in inches) _____

2-inch 4-inch 6-inch Other _____

Total Depth of Casing (TD in feet BTOC) 200.61

Water Level Depth (WL in feet BTOC) : 109.93

Number Of Well Volumes to be Purged (# Vols)

4 5 10 Other _____

3

PURGE VOLUME CALCULATION

$$(200.61 - 109.93) \times \frac{2}{\text{D(inches)}} \times \frac{1}{\# \text{ Vols}} \times 0.0408 = \frac{14.8}{\text{Calculated Purge Volume}} \text{ gallons}$$

(90.68)

VOLUME DURING WELL

21 gallons

1252 Start 1600 Stop 188 Elapsed

Initial / gpm Final / gpm Initial / Hz Final / Hz

Average Purge Rate = 0.11 gpm

Time	Volume (gallons)	Temp (°C)	pH	EC (ms/cm or)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Water Level
1331	5	21.5	8.28	1.8	1.94	-134	584	
1408	10	22.0	8.18	1.77	2.77	-116	95.4	
1440	15	23.31	8.17	1.78	2.51	-107	72.0	
1530	20	20.11	8.16	1.77	2.33	-134	31.0	

Observations During Purging (Turbidity, Color, Odor, Well Condition etc) :

Discharge Water Disposal: Onsite treatment facility

TURBID. DID NOT REACH 3 BED VOLUMES.

WELL SAMPLING
SAMPLING METHOD

Sample at 80% (Minimum recharge)

(Sample Turbidity < 5 NTU)

Bailer Type : Disposable

Sampling Time (80%) Recharge: 160

Depth to Water: 109.88

Sample No.	Number Containers	Container Type	Lab	Analysis	Preservatives

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Appendix C

Laboratory Analytical Data

LABORATORY REPORT

Prepared For: Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project: Former Cenco Refinery
B0054205.0001

Sampled: 01/13/09
Received: 01/13/09
Revised: 02/03/09 14:52

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

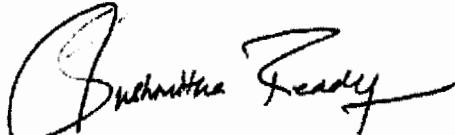
SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: Report reissued with J flags and revised sample IDs for W14A, 14D, 7 and 8

LABORATORY ID	CLIENT ID	MATRIX
ISA0950-01	TB011309	Water
ISA0950-02	MW-603-0109	Water
ISA0950-03	MW-606-0109	Water
ISA0950-04	W-14A-0109	Water
ISA0950-05	W-14B-0109	Water
ISA0950-06	W-7-0109	Water
ISA0950-07	W-8-0109	Water

Reviewed By:



TestAmerica Irvine

Sushmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-01 (TB011309 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A16036	25	50	ND	1	01/16/09	01/16/09	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA0950-02 (MW-603-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A16036	25	50	75	1	01/16/09	01/16/09	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA0950-03 (MW-606-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A16036	25	50	ND	1	01/16/09	01/16/09	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA0950-04 (W-14A-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A16036	25	50	27	1	01/16/09	01/16/09	J
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA0950-05 (W-14B-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A18006	25	50	170	1	01/18/09	01/18/09	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA0950-06 (W-7-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A18006	25	50	ND	1	01/18/09	01/18/09	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA0950-07 (W-8-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A18006	25	50	120	1	01/18/09	01/18/09	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									

TestAmerica Irvine

Sushmitha Reddy
Project Manager

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ISA0950 <Page 2 of 34>

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
Sample ID: ISA0950-01 (TB011309 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Bromobenzene	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
Bromochloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromodichloromethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Bromoform	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromomethane	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
-Butylbenzene	EPA 8260B	9A15016	0.37	5.0	ND	1	01/15/09	01/16/09	
sec-Butylbenzene	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
tert-Butylbenzene	EPA 8260B	9A15016	0.22	5.0	ND	1	01/15/09	01/16/09	
Carbon tetrachloride	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Chlorobenzene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
Chloroethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Chloroform	EPA 8260B	9A15016	0.33	2.0	ND	1	01/15/09	01/16/09	
Chloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
2-Chlorotoluene	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
-Chlorotoluene	EPA 8260B	9A15016	0.29	5.0	ND	1	01/15/09	01/16/09	
2-Dibromo-3-chloropropane	EPA 8260B	9A15016	0.97	5.0	ND	1	01/15/09	01/16/09	
Dibromochloromethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
,2-Dibromoethane (EDB)	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
Dibromomethane	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2-Dichlorobenzene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichlorobenzene	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
4-Dichlorobenzene	EPA 8260B	9A15016	0.37	2.0	ND	1	01/15/09	01/16/09	
Dichlorodifluoromethane	EPA 8260B	9A15016	0.26	5.0	ND	1	01/15/09	01/16/09	
1,1-Dichloroethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
2-Dichloroethane	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
1-Dichloroethene	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
cis-1,2-Dichloroethene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
trans-1,2-Dichloroethene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
2-Dichloropropane	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichloropropane	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
2,2-Dichloropropane	EPA 8260B	9A15016	0.34	2.0	ND	1	01/15/09	01/16/09	
s-1,3-Dichloropropene	EPA 8260B	9A15016	0.22	2.0	ND	1	01/15/09	01/16/09	
trans-1,3-Dichloropropene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,1-Dichloropropene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Phenylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Hexachlorobutadiene	EPA 8260B	9A15016	0.38	5.0	ND	1	01/15/09	01/16/09	
Isopropylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Isopropyltoluene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Ethylene chloride	EPA 8260B	9A15016	0.95	5.0	ND	1	01/15/09	01/16/09	
Naphthalene	EPA 8260B	9A15016	0.41	5.0	ND	1	01/15/09	01/16/09	

TestAmerica Irvine

Rushmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-01 (TB011309 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A15016	0.27	2.0	ND	1	01/15/09	01/16/09	
Styrene	EPA 8260B	9A15016	0.20	2.0	ND	1	01/15/09	01/16/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Tetrachloroethene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
Toluene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichlorobenzene	EPA 8260B	9A15016	0.30	5.0	ND	1	01/15/09	01/16/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A15016	0.48	5.0	ND	1	01/15/09	01/16/09	
1,1,1-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
1,1,2-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Trichloroethene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Trichlorofluoromethane	EPA 8260B	9A15016	0.34	5.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichloropropane	EPA 8260B	9A15016	0.40	10	ND	1	01/15/09	01/16/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A15016	0.23	2.0	ND	1	01/15/09	01/16/09	
1,3,5-Trimethylbenzene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Vinyl chloride	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
m,p-Xylenes	EPA 8260B	9A15016	0.60	2.0	ND	1	01/15/09	01/16/09	
o-Xylene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Xylenes, Total	EPA 8260B	9A15016	0.90	4.0	ND	1	01/15/09	01/16/09	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A15016	0.32	5.0	ND	1	01/15/09	01/16/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A15016	0.33	5.0	ND	1	01/15/09	01/16/09	
tert-Butanol (TBA)	EPA 8260B	9A15016	6.5	50	ND	1	01/15/09	01/16/09	
Surrogate: 4-Bromofluorobenzene (80-120%)									
Surrogate: Dibromofluoromethane (80-120%)									
Surrogate: Toluene-d8 (80-120%)									
96 %									
111 %									
107 %									

TestAmerica Irvine

Sushmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-02 (MW-603-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A15016	0.28	2.0	0.39	1	01/15/09	01/16/09	J
Bromobenzene	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
Bromochloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromodichloromethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Bromoform	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromomethane	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
Butylbenzene	EPA 8260B	9A15016	0.37	5.0	ND	1	01/15/09	01/16/09	
sec-Butylbenzene	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
tert-Butylbenzene	EPA 8260B	9A15016	0.22	5.0	ND	1	01/15/09	01/16/09	
Carbon tetrachloride	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Chlorobenzene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
Chloroethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Chloroform	EPA 8260B	9A15016	0.33	2.0	ND	1	01/15/09	01/16/09	
Chloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
2-Chlorotoluene	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
-Chlorotoluene	EPA 8260B	9A15016	0.29	5.0	ND	1	01/15/09	01/16/09	
2-Dibromo-3-chloropropane	EPA 8260B	9A15016	0.97	5.0	ND	1	01/15/09	01/16/09	
Dibromochloromethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
1,2-Dibromoethane (EDB)	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
Bromomethane	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2-Dichlorobenzene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichlorobenzene	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
4-Dichlorobenzene	EPA 8260B	9A15016	0.37	2.0	ND	1	01/15/09	01/16/09	
Dichlorodifluoromethane	EPA 8260B	9A15016	0.26	5.0	ND	1	01/15/09	01/16/09	
1,1-Dichloroethane	EPA 8260B	9A15016	0.40	2.0	4.4	1	01/15/09	01/16/09	
2-Dichloroethane	EPA 8260B	9A15016	0.28	2.0	5.6	1	01/15/09	01/16/09	
1-Dichloroethene	EPA 8260B	9A15016	0.42	5.0	48	1	01/15/09	01/16/09	
cis-1,2-Dichloroethene	EPA 8260B	9A15016	0.32	2.0	17	1	01/15/09	01/16/09	
trans-1,2-Dichloroethene	EPA 8260B	9A15016	0.30	2.0	2.8	1	01/15/09	01/16/09	
2-Dichloropropane	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichloropropane	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
2,2-Dichloropropane	EPA 8260B	9A15016	0.34	2.0	ND	1	01/15/09	01/16/09	
trans-1,3-Dichloropropene	EPA 8260B	9A15016	0.22	2.0	ND	1	01/15/09	01/16/09	
trans-1,3-Dichloropropene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,1-Dichloropropene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Phenylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Exachlorobutadiene	EPA 8260B	9A15016	0.38	5.0	ND	1	01/15/09	01/16/09	
Isopropylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Isopropyltoluene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Ethylene chloride	EPA 8260B	9A15016	0.95	5.0	ND	1	01/15/09	01/16/09	
Naphthalene	EPA 8260B	9A15016	0.41	5.0	ND	1	01/15/09	01/16/09	

TestAmerica Irvine

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Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-02 (MW-603-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A15016	0.27	2.0	ND	1	01/15/09	01/16/09	
Styrene	EPA 8260B	9A15016	0.20	2.0	ND	1	01/15/09	01/16/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Tetrachloroethylene	EPA 8260B	9A15016	0.32	2.0	74	1	01/15/09	01/16/09	
Toluene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichlorobenzene	EPA 8260B	9A15016	0.30	5.0	ND	1	01/15/09	01/16/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A15016	0.48	5.0	ND	1	01/15/09	01/16/09	
1,1,1-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
1,1,2-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Trichloroethylene	EPA 8260B	9A15016	0.26	2.0	79	1	01/15/09	01/16/09	
Trichlorofluoromethane	EPA 8260B	9A15016	0.34	5.0	0.61	1	01/15/09	01/16/09	J
1,2,3-Trichloropropane	EPA 8260B	9A15016	0.40	10	ND	1	01/15/09	01/16/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A15016	0.23	2.0	ND	1	01/15/09	01/16/09	
1,3,5-Trimethylbenzene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Vinyl chloride	EPA 8260B	9A15016	0.40	5.0	1.2	1	01/15/09	01/16/09	J
m,p-Xylenes	EPA 8260B	9A15016	0.60	2.0	ND	1	01/15/09	01/16/09	
o-Xylene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Xylenes, Total	EPA 8260B	9A15016	0.90	4.0	ND	1	01/15/09	01/16/09	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A15016	0.32	5.0	ND	1	01/15/09	01/16/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A15016	0.33	5.0	ND	1	01/15/09	01/16/09	
tert-Butanol (TBA)	EPA 8260B	9A15016	6.5	50	ND	1	01/15/09	01/16/09	
Surrogate: 4-Bromofluorobenzene (80-120%)							97 %		
Surrogate: Dibromofluoromethane (80-120%)							110 %		
Surrogate: Toluene-d8 (80-120%)							107 %		

TestAmerica Irvine

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Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
Sample ID: ISA0950-03 (MW-606-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Bromobenzene	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
Bromoform	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromochloromethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Bromodichloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromomethane	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
Butylbenzene	EPA 8260B	9A15016	0.37	5.0	ND	1	01/15/09	01/16/09	
sec-Butylbenzene	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
c-Butylbenzene	EPA 8260B	9A15016	0.22	5.0	ND	1	01/15/09	01/16/09	
Carbon tetrachloride	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Chlorobenzene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
Chloroethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Chloroform	EPA 8260B	9A15016	0.33	2.0	2.0	1	01/15/09	01/16/09	
Chloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
2-Chlorotoluene	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Chlorotoluene	EPA 8260B	9A15016	0.29	5.0	ND	1	01/15/09	01/16/09	
2-Dibromo-3-chloropropane	EPA 8260B	9A15016	0.97	5.0	ND	1	01/15/09	01/16/09	
Dibromochloromethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
2-Dibromoethane (EDB)	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
ibromomethane	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2-Dichlorobenzene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichlorobenzene	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
4-Dichlorobenzene	EPA 8260B	9A15016	0.37	2.0	ND	1	01/15/09	01/16/09	
Dichlorodifluoromethane	EPA 8260B	9A15016	0.26	5.0	ND	1	01/15/09	01/16/09	
1,1-Dichloroethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
2-Dichloroethane	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
1-Dichloroethene	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
cis-1,2-Dichloroethene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
trans-1,2-Dichloroethene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
2-Dichloropropane	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichloropropane	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
2,2-Dichloropropane	EPA 8260B	9A15016	0.34	2.0	ND	1	01/15/09	01/16/09	
-1,3-Dichloropropene	EPA 8260B	9A15016	0.22	2.0	ND	1	01/15/09	01/16/09	
trans-1,3-Dichloropropene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,1-Dichloropropene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Phylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Exachlorobutadiene	EPA 8260B	9A15016	0.38	5.0	ND	1	01/15/09	01/16/09	
Isopropylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Isopropyltoluene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Ethylene chloride	EPA 8260B	9A15016	0.95	5.0	ND	1	01/15/09	01/16/09	
Naphthalene	EPA 8260B	9A15016	0.41	5.0	ND	1	01/15/09	01/16/09	

TestAmerica Irvine

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Project ID: Former Cenoco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-03 (MW-606-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A15016	0.27	2.0	ND	1	01/15/09	01/16/09	
Styrene	EPA 8260B	9A15016	0.20	2.0	ND	1	01/15/09	01/16/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Tetrachloroethylene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
Toluene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichlorobenzene	EPA 8260B	9A15016	0.30	5.0	ND	1	01/15/09	01/16/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A15016	0.48	5.0	ND	1	01/15/09	01/16/09	
1,1,1-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
1,1,2-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Trichloroethylene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Trichlorofluoromethane	EPA 8260B	9A15016	0.34	5.0	1.3	1	01/15/09	01/16/09	J
1,2,3-Trichloropropane	EPA 8260B	9A15016	0.40	10	ND	1	01/15/09	01/16/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A15016	0.23	2.0	ND	1	01/15/09	01/16/09	
1,3,5-Trimethylbenzene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Vinyl chloride	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
m,p-Xylenes	EPA 8260B	9A15016	0.60	2.0	ND	1	01/15/09	01/16/09	
o-Xylene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Xylenes, Total	EPA 8260B	9A15016	0.90	4.0	ND	1	01/15/09	01/16/09	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A15016	0.32	5.0	ND	1	01/15/09	01/16/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A15016	0.33	5.0	ND	1	01/15/09	01/16/09	
tert-Butanol (TBA)	EPA 8260B	9A15016	6.5	50	ND	1	01/15/09	01/16/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					96 %				
Surrogate: Dibromofluoromethane (80-120%)					110 %				
Surrogate: Toluene-d8 (80-120%)					107 %				

TestAmerica Irvine

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Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-04 (W-14A-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Bromobenzene	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
Bromochloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromodichloromethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Bromoform	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromomethane	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
Butylbenzene	EPA 8260B	9A15016	0.37	5.0	ND	1	01/15/09	01/16/09	
sec-Butylbenzene	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
tert-Butylbenzene	EPA 8260B	9A15016	0.22	5.0	ND	1	01/15/09	01/16/09	
Carbon tetrachloride	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Chlorobenzene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
Chloroethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Chloroform	EPA 8260B	9A15016	0.33	2.0	0.50	1	01/15/09	01/16/09	J
Chloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
2-Chlorotoluene	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
-Chlorotoluene	EPA 8260B	9A15016	0.29	5.0	ND	1	01/15/09	01/16/09	
2-Dibromo-3-chloropropane	EPA 8260B	9A15016	0.97	5.0	ND	1	01/15/09	01/16/09	
Dibromochloromethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
1,2-Dibromoethane (EDB)	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
ibromomethane	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2-Dichlorobenzene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichlorobenzene	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
4-Dichlorobenzene	EPA 8260B	9A15016	0.37	2.0	ND	1	01/15/09	01/16/09	
Dichlorodifluoromethane	EPA 8260B	9A15016	0.26	5.0	ND	1	01/15/09	01/16/09	
1,1-Dichloroethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
2-Dichloroethane	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
1-Dichloroethene	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
cis-1,2-Dichloroethene	EPA 8260B	9A15016	0.32	2.0	1.5	1	01/15/09	01/16/09	J
trans-1,2-Dichloroethene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
2-Dichloropropane	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichloropropane	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
2,2-Dichloropropane	EPA 8260B	9A15016	0.34	2.0	ND	1	01/15/09	01/16/09	
1,1,3-Dichloropropene	EPA 8260B	9A15016	0.22	2.0	ND	1	01/15/09	01/16/09	
trans-1,3-Dichloropropene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,1-Dichloropropene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Phylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
hexachlorobutadiene	EPA 8260B	9A15016	0.38	5.0	ND	1	01/15/09	01/16/09	
Isopropylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Isopropyltoluene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Ethylene chloride	EPA 8260B	9A15016	0.95	5.0	ND	1	01/15/09	01/16/09	
Naphthalene	EPA 8260B	9A15016	0.41	5.0	ND	1	01/15/09	01/16/09	

TestAmerica Irvine
Shmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
 801 N. Brand Blvd., Suite 1120
 Glendale, CA 91203
 Attention: Leah Levy

Project ID: Former Cenco Refinery
 B0054205.0001
 Report Number: ISA0950

Sampled: 01/13/09
 Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-04 (W-14A-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A15016	0.27	2.0	ND	1	01/15/09	01/16/09	
Styrene	EPA 8260B	9A15016	0.20	2.0	ND	1	01/15/09	01/16/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Tetrachloroethene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
Toluene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichlorobenzene	EPA 8260B	9A15016	0.30	5.0	ND	1	01/15/09	01/16/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A15016	0.48	5.0	ND	1	01/15/09	01/16/09	
1,1,1-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
1,1,2-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Trichloroethene	EPA 8260B	9A15016	0.26	2.0	2.0	1	01/15/09	01/16/09	
Trichlorofluoromethane	EPA 8260B	9A15016	0.34	5.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichloropropane	EPA 8260B	9A15016	0.40	10	ND	1	01/15/09	01/16/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A15016	0.23	2.0	ND	1	01/15/09	01/16/09	
1,3,5-Trimethylbenzene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Vinyl chloride	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
m,p-Xylenes	EPA 8260B	9A15016	0.60	2.0	ND	1	01/15/09	01/16/09	
o-Xylene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Xylenes, Total	EPA 8260B	9A15016	0.90	4.0	ND	1	01/15/09	01/16/09	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A15016	0.32	5.0	ND	1	01/15/09	01/16/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A15016	0.33	5.0	ND	1	01/15/09	01/16/09	
tert-Butanol (TBA)	EPA 8260B	9A15016	6.5	50	6.7	1	01/15/09	01/16/09	J
Surrogate: 4-Bromofluorobenzene (80-120%)					96 %				
Surrogate: Dibromofluoromethane (80-120%)					110 %				
Surrogate: Toluene-d8 (80-120%)					106 %				

TestAmerica Irvine

Sushmitha Reddy
 Project Manager

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Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-05 (W-14B-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Bromobenzene	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
Bromochloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromodichloromethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Bromoform	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromomethane	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
1-Butylbenzene	EPA 8260B	9A15016	0.37	5.0	ND	1	01/15/09	01/16/09	
sec-Butylbenzene	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
tert-Butylbenzene	EPA 8260B	9A15016	0.22	5.0	ND	1	01/15/09	01/16/09	
Carbon tetrachloride	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Chlorobenzene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
Chloroethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Chloroform	EPA 8260B	9A15016	0.33	2.0	ND	1	01/15/09	01/16/09	
Chloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
2-Chlorotoluene	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
-Chlorotoluene	EPA 8260B	9A15016	0.29	5.0	ND	1	01/15/09	01/16/09	
,2-Dibromo-3-chloropropane	EPA 8260B	9A15016	0.97	5.0	ND	1	01/15/09	01/16/09	
Dibromochloromethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
,2-Dibromoethane (EDB)	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
Dibromomethane	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2-Dichlorobenzene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichlorobenzene	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
4-Dichlorobenzene	EPA 8260B	9A15016	0.37	2.0	ND	1	01/15/09	01/16/09	
Dichlorodifluoromethane	EPA 8260B	9A15016	0.26	5.0	ND	1	01/15/09	01/16/09	
1,1-Dichloroethane	EPA 8260B	9A15016	0.40	2.0	1.2	1	01/15/09	01/16/09	J
2-Dichloroethane	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
1-Dichloroethene	EPA 8260B	9A15016	0.42	5.0	10	1	01/15/09	01/16/09	
cis-1,2-Dichloroethene	EPA 8260B	9A15016	0.32	2.0	4.8	1	01/15/09	01/16/09	J
trans-1,2-Dichloroethene	EPA 8260B	9A15016	0.30	2.0	1.2	1	01/15/09	01/16/09	J
2-Dichloropropane	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichloropropane	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
2,2-Dichloropropane	EPA 8260B	9A15016	0.34	2.0	ND	1	01/15/09	01/16/09	
trans-1,3-Dichloropropene	EPA 8260B	9A15016	0.22	2.0	ND	1	01/15/09	01/16/09	
trans-1,3-Dichloropropene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,1-Dichloropropene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Phenylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Hexachlorobutadiene	EPA 8260B	9A15016	0.38	5.0	ND	1	01/15/09	01/16/09	
Isopropylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Isopropyltoluene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Ethylene chloride	EPA 8260B	9A15016	0.95	5.0	ND	1	01/15/09	01/16/09	
Naphthalene	EPA 8260B	9A15016	0.41	5.0	ND	1	01/15/09	01/16/09	

TestAmerica Irvine

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Project ID: Former Cenoco Refinery
 B0054205.0001
 Report Number: ISA0950

Sampled: 01/13/09
 Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-05 (W-I4B-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A15016	0.27	2.0	ND	1	01/15/09	01/16/09	
Styrene	EPA 8260B	9A15016	0.20	2.0	ND	1	01/15/09	01/16/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Tetrachloroethene	EPA 8260B	9A15016	0.32	2.0	8.4	1	01/15/09	01/16/09	
Toluene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichlorobenzene	EPA 8260B	9A15016	0.30	5.0	ND	1	01/15/09	01/16/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A15016	0.48	5.0	ND	1	01/15/09	01/16/09	
1,1,1-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
1,1,2-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Trichloroethene	EPA 8260B	9A15016	0.26	2.0	28	1	01/15/09	01/16/09	
Trichlorofluoromethane	EPA 8260B	9A15016	0.34	5.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichloropropane	EPA 8260B	9A15016	0.40	10	ND	1	01/15/09	01/16/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A15016	0.23	2.0	ND	1	01/15/09	01/16/09	
1,3,5-Trimethylbenzene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Vinyl chloride	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
m,p-Xylenes	EPA 8260B	9A15016	0.60	2.0	ND	1	01/15/09	01/16/09	
o-Xylene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Xylenes, Total	EPA 8260B	9A15016	0.90	4.0	ND	1	01/15/09	01/16/09	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A15016	0.32	5.0	ND	1	01/15/09	01/16/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A15016	0.33	5.0	ND	1	01/15/09	01/16/09	
tert-Butanol (TBA)	EPA 8260B	9A15016	6.5	50	ND	1	01/15/09	01/16/09	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							95 %		
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							111 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							107 %		

TestAmerica Irvine

Sushmitha Reddy
 Project Manager

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Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-06 (W-7-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A15016	0.28	2.0	0.35	1	01/15/09	01/16/09	J
Bromobenzene	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
Bromochloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromodichloromethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Bromoform	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromomethane	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
-Butylbenzene	EPA 8260B	9A15016	0.37	5.0	ND	1	01/15/09	01/16/09	
sec-Butylbenzene	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
tert-Butylbenzene	EPA 8260B	9A15016	0.22	5.0	ND	1	01/15/09	01/16/09	
Carbon tetrachloride	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Chlorobenzene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
Chloroethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Chloroform	EPA 8260B	9A15016	0.33	2.0	ND	1	01/15/09	01/16/09	
Chloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
2-Chlorotoluene	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
-Chlorotoluene	EPA 8260B	9A15016	0.29	5.0	ND	1	01/15/09	01/16/09	
2-Dibromo-3-chloropropane	EPA 8260B	9A15016	0.97	5.0	ND	1	01/15/09	01/16/09	
Dibromochloromethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
2,2-Dibromoethane (EDB)	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
Bromomethane	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2-Dichlorobenzene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichlorobenzene	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
4-Dichlorobenzene	EPA 8260B	9A15016	0.37	2.0	ND	1	01/15/09	01/16/09	
Dichlorodifluoromethane	EPA 8260B	9A15016	0.26	5.0	ND	1	01/15/09	01/16/09	
1,1-Dichloroethane	EPA 8260B	9A15016	0.40	2.0	1.5	1	01/15/09	01/16/09	J
2-Dichloroethane	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
1-Dichloroethene	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
cis-1,2-Dichloroethene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
trans-1,2-Dichloroethene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
2-Dichloropropane	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichloropropane	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
2,2-Dichloropropane	EPA 8260B	9A15016	0.34	2.0	ND	1	01/15/09	01/16/09	
trans-1,3-Dichloropropene	EPA 8260B	9A15016	0.22	2.0	ND	1	01/15/09	01/16/09	
trans-1,3-Dichloropropene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,1-Dichloropropene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Phylbenzene	EPA 8260B	9A15016	0.25	2.0	0.28	1	01/15/09	01/16/09	J
Exachlorobutadiene	EPA 8260B	9A15016	0.38	5.0	ND	1	01/15/09	01/16/09	
Isopropylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Isopropyltoluene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Ethylene chloride	EPA 8260B	9A15016	0.95	5.0	ND	1	01/15/09	01/16/09	
Naphthalene	EPA 8260B	9A15016	0.41	5.0	ND	1	01/15/09	01/16/09	

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Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-06 (W-7-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A15016	0.27	2.0	ND	1	01/15/09	01/16/09	
Styrene	EPA 8260B	9A15016	0.20	2.0	ND	1	01/15/09	01/16/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Tetrachloroethene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
Toluene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichlorobenzene	EPA 8260B	9A15016	0.30	5.0	ND	1	01/15/09	01/16/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A15016	0.48	5.0	ND	1	01/15/09	01/16/09	
1,1,1-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
1,1,2-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Trichloroethene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Trichlorofluoromethane	EPA 8260B	9A15016	0.34	5.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichloropropane	EPA 8260B	9A15016	0.40	10	ND	1	01/15/09	01/16/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A15016	0.23	2.0	ND	1	01/15/09	01/16/09	
1,3,5-Trimethylbenzene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Vinyl chloride	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
m,p-Xylenes	EPA 8260B	9A15016	0.60	2.0	ND	1	01/15/09	01/16/09	
o-Xylene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Xylenes, Total	EPA 8260B	9A15016	0.90	4.0	ND	1	01/15/09	01/16/09	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A15016	0.32	5.0	ND	1	01/15/09	01/16/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A15016	0.33	5.0	ND	1	01/15/09	01/16/09	
tert-Butanol (TBA)	EPA 8260B	9A15016	6.5	50	ND	1	01/15/09	01/16/09	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							95 %		
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							111 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							107 %		

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Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-07 (W-8-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A15016	0.28	2.0	0.55	1	01/15/09	01/16/09	J
Bromobenzene	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
Bromoform	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromochloromethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Bromodichloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Bromoform	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Butylbenzene	EPA 8260B	9A15016	0.37	5.0	ND	1	01/15/09	01/16/09	
sec-Butylbenzene	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
tert-Butylbenzene	EPA 8260B	9A15016	0.22	5.0	ND	1	01/15/09	01/16/09	
Carbon tetrachloride	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Chlorobenzene	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
Chloroethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
Chloroform	EPA 8260B	9A15016	0.33	2.0	ND	1	01/15/09	01/16/09	
Chloromethane	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
2-Chlorotoluene	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
-Chlorotoluene	EPA 8260B	9A15016	0.29	5.0	ND	1	01/15/09	01/16/09	
2-Dibromo-3-chloropropane	EPA 8260B	9A15016	0.97	5.0	ND	1	01/15/09	01/16/09	
Dibromochloromethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
2-Dibromoethane (EDB)	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
ibromomethane	EPA 8260B	9A15016	0.36	2.0	ND	1	01/15/09	01/16/09	
1,2-Dichlorobenzene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichlorobenzene	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
4-Dichlorobenzene	EPA 8260B	9A15016	0.37	2.0	ND	1	01/15/09	01/16/09	
Dichlorodifluoromethane	EPA 8260B	9A15016	0.26	5.0	ND	1	01/15/09	01/16/09	
1,1-Dichloroethane	EPA 8260B	9A15016	0.40	2.0	ND	1	01/15/09	01/16/09	
2-Dichloroethane	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
1-Dichloroethene	EPA 8260B	9A15016	0.42	5.0	ND	1	01/15/09	01/16/09	
cis-1,2-Dichloroethene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
trans-1,2-Dichloroethene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
2-Dichloropropane	EPA 8260B	9A15016	0.35	2.0	ND	1	01/15/09	01/16/09	
1,3-Dichloropropane	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
2,2-Dichloropropane	EPA 8260B	9A15016	0.34	2.0	ND	1	01/15/09	01/16/09	
trans-1,3-Dichloropropene	EPA 8260B	9A15016	0.22	2.0	ND	1	01/15/09	01/16/09	
cis-1,3-Dichloropropene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
1,1-Dichloropropene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Hydrobenzene	EPA 8260B	9A15016	0.25	2.0	0.39	1	01/15/09	01/16/09	J
Exachlorobutadiene	EPA 8260B	9A15016	0.38	5.0	ND	1	01/15/09	01/16/09	
Isopropylbenzene	EPA 8260B	9A15016	0.25	2.0	ND	1	01/15/09	01/16/09	
Isopropyltoluene	EPA 8260B	9A15016	0.28	2.0	ND	1	01/15/09	01/16/09	
Ethylene chloride	EPA 8260B	9A15016	0.95	5.0	ND	1	01/15/09	01/16/09	
Naphthalene	EPA 8260B	9A15016	0.41	5.0	ND	1	01/15/09	01/16/09	

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B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-07 (W-8-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A15016	0.27	2.0	ND	1	01/15/09	01/16/09	
Styrene	EPA 8260B	9A15016	0.20	2.0	ND	1	01/15/09	01/16/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A15016	0.27	5.0	ND	1	01/15/09	01/16/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Tetrachloroethene	EPA 8260B	9A15016	0.32	2.0	ND	1	01/15/09	01/16/09	
Toluene	EPA 8260B	9A15016	0.36	2.0	0.93	1	01/15/09	01/16/09	J
1,2,3-Trichlorobenzene	EPA 8260B	9A15016	0.30	5.0	ND	1	01/15/09	01/16/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A15016	0.48	5.0	ND	1	01/15/09	01/16/09	
1,1,1-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
1,1,2-Trichloroethane	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Trichloroethene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Trichlorofluoromethane	EPA 8260B	9A15016	0.34	5.0	ND	1	01/15/09	01/16/09	
1,2,3-Trichloropropane	EPA 8260B	9A15016	0.40	10	ND	1	01/15/09	01/16/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A15016	0.23	2.0	0.25	1	01/15/09	01/16/09	J
1,3,5-Trimethylbenzene	EPA 8260B	9A15016	0.26	2.0	ND	1	01/15/09	01/16/09	
Vinyl chloride	EPA 8260B	9A15016	0.40	5.0	ND	1	01/15/09	01/16/09	
m,p-Xylenes	EPA 8260B	9A15016	0.60	2.0	ND	1	01/15/09	01/16/09	
o-Xylene	EPA 8260B	9A15016	0.30	2.0	ND	1	01/15/09	01/16/09	
Xylenes, Total	EPA 8260B	9A15016	0.90	4.0	ND	1	01/15/09	01/16/09	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A15016	0.25	5.0	ND	1	01/15/09	01/16/09	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A15016	0.28	5.0	ND	1	01/15/09	01/16/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A15016	0.32	5.0	ND	1	01/15/09	01/16/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A15016	0.33	5.0	ND	1	01/15/09	01/16/09	
tert-Butanol (TBA)	EPA 8260B	9A15016	6.5	50	ND	1	01/15/09	01/16/09	
Surrogate: 4-Bromofluorobenzene (80-120%)							96 %		
Surrogate: Dibromofluoromethane (80-120%)							113 %		
Surrogate: Toluene-d8 (80-120%)							108 %		

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Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-02 (MW-603-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A13146	0.00025	0.0020	ND	1	01/13/09	01/14/09	C
Sample ID: ISA0950-03 (MW-606-0109 - Water)									
Reporting Units: mg/l									
Alkalinity as CaCO ₃	SM2320B	9A14053	2.0	2.0	380	1	01/14/09	01/14/09	
Ferrous Iron	SM 3500-Fe D	9A14062	0.10	0.10	ND	1	01/14/09	01/14/09	
Chromium VI	EPA 7199	9A13146	0.00025	0.0020	0.0012	1	01/13/09	01/14/09	C, J
Nitrate-N	EPA 300.0	9A14072	0.060	0.11	2.9	1	01/14/09	01/14/09	
Sulfate	EPA 300.0	9A14072	4.0	10	210	20	01/14/09	01/14/09	
Sample ID: ISA0950-04 (W-14A-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A13146	0.00025	0.0020	ND	1	01/13/09	01/14/09	C
Sample ID: ISA0950-05 (W-14B-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A13146	0.00025	0.0020	0.00044	1	01/13/09	01/14/09	C, J
Sample ID: ISA0950-06 (W-7-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A13146	0.00025	0.0020	ND	1	01/13/09	01/14/09	C
Sample ID: ISA0950-07 (W-8-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A13146	0.00025	0.0020	ND	1	01/13/09	01/14/09	C

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Project ID: Former Cenoco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

RSK SOP-175 - Dissolved Gases in Water

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA0950-03 (MW-606-0109 - Water)									
Reporting Units: mg/L									
Methane	RSK SOP-175	9A15008	0.00050	0.0010	ND	1.0	01/15/09	01/15/09	

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Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: MW-603-0109 (ISA0950-02) - Water EPA 7199	1	01/13/2009 08:40	01/13/2009 17:30	01/13/2009 23:00	01/14/2009 00:04
Sample ID: MW-606-0109 (ISA0950-03) - Water EPA 300.0	2	01/13/2009 09:40	01/13/2009 17:30	01/14/2009 13:00	01/14/2009 13:10
EPA 7199	1	01/13/2009 09:40	01/13/2009 17:30	01/13/2009 23:00	01/14/2009 00:14
SM 3500-Fe D	1	01/13/2009 09:40	01/13/2009 17:30	01/14/2009 07:00	01/14/2009 07:50
Sample ID: W-14A-0109 (ISA0950-04) - Water EPA 7199	1	01/13/2009 12:15	01/13/2009 17:30	01/13/2009 23:00	01/14/2009 00:25
Sample ID: W-14B-0109 (ISA0950-05) - Water EPA 7199	1	01/13/2009 14:15	01/13/2009 17:30	01/13/2009 23:00	01/14/2009 00:57
Sample ID: W-7-0109 (ISA0950-06) - Water EPA 7199	1	01/13/2009 14:50	01/13/2009 17:30	01/13/2009 23:00	01/14/2009 01:07
Sample ID: W-8-0109 (ISA0950-07) - Water EPA 7199	1	01/13/2009 15:15	01/13/2009 17:30	01/13/2009 23:00	01/14/2009 01:18

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B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9A16036 Extracted: 01/16/09											
Blank Analyzed: 01/16/2009 (9A16036-BLK1)											
Volatile Fuel Hydrocarbons (C6-C12)	34.1	50	25	ug/l							J
Surrogate: 4-BFB (FID)	10.2			ug/l	10.0		102	65-140			
LCS Analyzed: 01/16/2009 (9A16036-BS1)											
Volatile Fuel Hydrocarbons (C6-C12)	789	50	25	ug/l	800		99	80-120			
Surrogate: 4-BFB (FID)	14.1			ug/l	10.0		141	65-140			Z2
Matrix Spike Analyzed: 01/16/2009 (9A16036-MS1)											
Volatile Fuel Hydrocarbons (C6-C12)	234	50	25	ug/l	220	ND	107	65-140			
Surrogate: 4-BFB (FID)	9.38			ug/l	10.0		94	65-140			
Matrix Spike Dup Analyzed: 01/16/2009 (9A16036-MSD1)											
Volatile Fuel Hydrocarbons (C6-C12)	271	50	25	ug/l	220	ND	123	65-140	15	20	
Surrogate: 4-BFB (FID)	10.9			ug/l	10.0		109	65-140			
Batch: 9A18006 Extracted: 01/18/09											
Blank Analyzed: 01/18/2009 (9A18006-BLK1)											
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	25	ug/l							
Surrogate: 4-BFB (FID)	9.75			ug/l	10.0		97	65-140			
LCS Analyzed: 01/18/2009 (9A18006-BS1)											
Volatile Fuel Hydrocarbons (C6-C12)	786	50	25	ug/l	800		98	80-120			
Surrogate: 4-BFB (FID)	13.9			ug/l	10.0		139	65-140			
Matrix Spike Analyzed: 01/18/2009 (9A18006-MS1)											
Volatile Fuel Hydrocarbons (C6-C12)	252	50	25	ug/l	220	ND	115	65-140			
Surrogate: 4-BFB (FID)	9.95			ug/l	10.0		100	65-140			

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Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A18006 Extracted: 01/18/09</u>											

Matrix Spike Dup Analyzed: 01/18/2009 (9A18006-MSD1)

Source: ISA0784-01

Volatile Fuel Hydrocarbons (C6-C12)	305	50	25	ug/l	220	ND	139	65-140	19	20	
Surrogate: 4-BFB (FID)		11.0		ug/l	10.0		11.0	65-140			

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B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A15016 Extracted: 01/15/09</u>											
Blank Analyzed: 01/15/2009 (9A15016-BLK1)											
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromoform	ND	5.0	0.40	ug/l							
Bromochloromethane	ND	2.0	0.30	ug/l							
Bromodichloromethane	ND	5.0	0.30	ug/l							
Bromomethane	ND	5.0	0.42	ug/l							
Carbon tetrachloride	ND	5.0	0.37	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.40	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.97	ug/l							
Dibromochloromethane	ND	2.0	0.40	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.26	ug/l							
1,1-Dichloroethane	ND	2.0	0.40	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.30	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.32	ug/l							
2,2-Dichloropropane	ND	2.0	0.34	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							

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Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A15016 Extracted: 01/15/09</u>											
Blank Analyzed: 01/15/2009 (9A15016-BLK1)											
ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.95	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
-Propylbenzene	ND	2.0	0.27	ug/l							
Tyrene	ND	2.0	0.20	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.30	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.30	ug/l							
2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
1-chloroethene	ND	2.0	0.26	ug/l							
1-chlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.40	ug/l							
m,p-Xylenes	ND	2.0	0.60	ug/l							
Xylene	ND	2.0	0.30	ug/l							
Yxlenes, Total	ND	4.0	0.90	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
Ethyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	50	6.5	ug/l							
Surrogate: 4-Bromofluorobenzene	23.7			ug/l	25.0		95	80-120			
Surrogate: Dibromofluoromethane	25.7			ug/l	25.0		103	80-120			
Surrogate: Toluene-d8	26.4			ug/l	25.0		105	80-120			

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Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9A15016 Extracted: 01/15/09											
LCS Analyzed: 01/15/2009 (9A15016-BS1)											
Benzene	25.5	2.0	0.28	ug/l	25.0		102	70-120			
Bromobenzene	23.0	5.0	0.27	ug/l	25.0		92	75-120			
Bromoform	24.2	5.0	0.40	ug/l	25.0		97	70-130			
Bromochloromethane	22.8	2.0	0.30	ug/l	25.0		91	70-135			
Bromodichloromethane	15.0	5.0	0.40	ug/l	25.0		60	55-130			
Bromomethane	25.0	5.0	0.42	ug/l	25.0		100	65-140			
n-Butylbenzene	27.8	5.0	0.37	ug/l	25.0		111	70-130			
sec-Butylbenzene	27.5	5.0	0.25	ug/l	25.0		110	70-125			
tert-Butylbenzene	25.8	5.0	0.22	ug/l	25.0		103	70-125			
Carbon tetrachloride	23.0	5.0	0.28	ug/l	25.0		92	65-140			
Chlorobenzene	24.7	2.0	0.36	ug/l	25.0		99	75-120			
Chloroethane	27.0	5.0	0.40	ug/l	25.0		108	60-140			
Chloroform	23.6	2.0	0.33	ug/l	25.0		94	70-130			
Chloromethane	21.0	5.0	0.40	ug/l	25.0		84	50-140			
2-Chlorotoluene	25.1	5.0	0.28	ug/l	25.0		100	70-125			
4-Chlorotoluene	25.4	5.0	0.29	ug/l	25.0		101	75-125			
1,2-Dibromo-3-chloropropane	16.6	5.0	0.97	ug/l	25.0		67	50-135			
Dibromochloromethane	19.1	2.0	0.40	ug/l	25.0		76	70-140			
1,2-Dibromoethane (EDB)	21.5	2.0	0.40	ug/l	25.0		86	75-125			
Dibromomethane	23.8	2.0	0.36	ug/l	25.0		95	70-125			
1,2-Dichlorobenzene	23.8	2.0	0.32	ug/l	25.0		95	75-120			
1,3-Dichlorobenzene	24.0	2.0	0.35	ug/l	25.0		96	75-120			
1,4-Dichlorobenzene	21.2	2.0	0.37	ug/l	25.0		85	75-120			
Dichlorodifluoromethane	19.3	5.0	0.26	ug/l	25.0		77	35-155			
1,1-Dichloroethane	25.8	2.0	0.40	ug/l	25.0		103	70-125			
1,2-Dichloroethane	21.7	2.0	0.28	ug/l	25.0		87	60-140			
1,1-Dichloroethene	19.9	5.0	0.42	ug/l	25.0		79	70-125			
cis-1,2-Dichloroethene	24.8	2.0	0.32	ug/l	25.0		99	70-125			
trans-1,2-Dichloroethene	21.9	2.0	0.30	ug/l	25.0		88	70-125			
1,2-Dichloropropane	24.6	2.0	0.35	ug/l	25.0		98	70-125			
1,3-Dichloropropane	23.4	2.0	0.32	ug/l	25.0		94	70-120			
2,2-Dichloropropane	24.0	2.0	0.34	ug/l	25.0		96	65-140			
cis-1,3-Dichloropropene	28.3	2.0	0.22	ug/l	25.0		113	75-125			
trans-1,3-Dichloropropene	21.1	2.0	0.32	ug/l	25.0		84	70-125			
1,1-Dichloropropene	24.7	2.0	0.28	ug/l	25.0		99	75-130			

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Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A15016 Extracted: 01/15/09</u>											
LCS Analyzed: 01/15/2009 (9A15016-BS1)											
Ethylbenzene	25.0	2.0	0.25	ug/l	25.0		100	75-125			
Hexachlorobutadiene	19.3	5.0	0.38	ug/l	25.0		77	65-135			
Isopropylbenzene	26.0	2.0	0.25	ug/l	25.0		104	75-130			
-Isopropyltoluene	25.5	2.0	0.28	ug/l	25.0		102	75-125			
Methylene chloride	25.8	5.0	0.95	ug/l	25.0		103	55-130			
Naphthalene	22.7	5.0	0.41	ug/l	25.0		91	55-135			
-Propylbenzene	27.7	2.0	0.27	ug/l	25.0		111	75-130			
Tyrene	23.9	2.0	0.20	ug/l	25.0		96	75-130			
1,1,1,2-Tetrachloroethane	22.9	5.0	0.27	ug/l	25.0		92	70-130			
1,1,2,2-Tetrachloroethane	27.0	2.0	0.30	ug/l	25.0		108	55-130			
Tetrachloroethene	22.4	2.0	0.32	ug/l	25.0		90	70-125			
Toluene	25.5	2.0	0.36	ug/l	25.0		102	70-120			
1,2,3-Trichlorobenzene	21.8	5.0	0.30	ug/l	25.0		87	65-125			
2,4-Trichlorobenzene	22.2	5.0	0.48	ug/l	25.0		89	70-135			
1,1-Trichloroethane	24.1	2.0	0.30	ug/l	25.0		97	65-135			
1,1,2-Trichloroethane	25.1	2.0	0.30	ug/l	25.0		100	70-125			
Trichloroethene	23.8	2.0	0.26	ug/l	25.0		95	70-125			
Trichlorofluoromethane	22.5	5.0	0.34	ug/l	25.0		90	65-145			
1,2,3-Trichloropropane	23.6	10	0.40	ug/l	25.0		94	60-130			
1,2,4-Trimethylbenzene	24.9	2.0	0.23	ug/l	25.0		99	75-125			
3,5-Trimethylbenzene	25.4	2.0	0.26	ug/l	25.0		102	75-125			
Vinyl chloride	23.9	5.0	0.40	ug/l	25.0		96	55-135			
m,p-Xylenes	50.5	2.0	0.60	ug/l	50.0		101	75-125			
Xylene	24.7	2.0	0.30	ug/l	25.0		99	75-125			
Xylenes, Total	75.2	4.0	0.90	ug/l	75.0		100	70-125			
Di-isopropyl Ether (DIPE)	23.6	5.0	0.25	ug/l	25.0		94	60-135			
Ethyl tert-Butyl Ether (ETBE)	25.4	5.0	0.28	ug/l	25.0		101	65-135			
Ethyl-tert-butyl Ether (MTBE)	23.6	5.0	0.32	ug/l	25.0		94	60-135			
tert-Amyl Methyl Ether (TAME)	25.8	5.0	0.33	ug/l	25.0		103	60-135			
tert-Butanol (TBA)	119	50	6.5	ug/l	125		95	70-135			
Surrogate: 4-Bromoarobenzene	24.3			ug/l	25.0		97	80-120			
Surrogate: Dibromoaromethane	26.2			ug/l	25.0		105	80-120			
Surrogate: Toluene-d8	26.7			ug/l	25.0		107	80-120			

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Project ID: Former Cenco Refinery
 B0054205.0001
 Report Number: ISA0950

Sampled: 01/13/09
 Received: 01/13/09

METHOD BLANK/QC DATA**VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9A15016 Extracted: 01/15/09											
Matrix Spike Analyzed: 01/15/2009 (9A15016-MS1)											
Source: ISA0985-04											
Benzene	26.2	2.0	0.28	ug/l	25.0	ND	105	65-125			
Bromobenzene	23.5	5.0	0.27	ug/l	25.0	ND	94	70-125			
Bromoform	24.5	5.0	0.40	ug/l	25.0	ND	98	65-135			
Bromodichloromethane	23.4	2.0	0.30	ug/l	25.0	ND	94	70-135			
Bromoform	15.1	5.0	0.40	ug/l	25.0	ND	61	55-135			
Bromomethane	26.6	5.0	0.42	ug/l	25.0	ND	106	55-145			
n-Butylbenzene	29.5	5.0	0.37	ug/l	25.0	ND	118	65-135			
sec-Butylbenzene	28.5	5.0	0.25	ug/l	25.0	ND	114	70-125			
tert-Butylbenzene	26.8	5.0	0.22	ug/l	25.0	ND	107	65-130			
Carbon tetrachloride	23.2	5.0	0.28	ug/l	25.0	ND	93	65-140			
Chlorobenzene	25.5	2.0	0.36	ug/l	25.0	ND	102	75-125			
Chloroethane	25.2	5.0	0.40	ug/l	25.0	ND	101	55-140			
Chloroform	24.6	2.0	0.33	ug/l	25.0	ND	98	65-135			
Chloromethane	23.7	5.0	0.40	ug/l	25.0	ND	95	45-145			
2-Chlorotoluene	26.1	5.0	0.28	ug/l	25.0	ND	104	65-135			
4-Chlorotoluene	26.3	5.0	0.29	ug/l	25.0	ND	105	70-135			
1,2-Dibromo-3-chloropropane	18.0	5.0	0.97	ug/l	25.0	ND	72	45-145			
Dibromochloromethane	20.0	2.0	0.40	ug/l	25.0	ND	80	65-140			
1,2-Dibromoethane (EDB)	22.6	2.0	0.40	ug/l	25.0	ND	90	70-130			
Dibromomethane	24.2	2.0	0.36	ug/l	25.0	ND	97	65-135			
1,2-Dichlorobenzene	24.8	2.0	0.32	ug/l	25.0	ND	99	75-125			
1,3-Dichlorobenzene	25.2	2.0	0.35	ug/l	25.0	ND	101	75-125			
1,4-Dichlorobenzene	22.3	2.0	0.37	ug/l	25.0	ND	89	75-125			
Dichlorodifluoromethane	22.9	5.0	0.26	ug/l	25.0	ND	92	25-155			
1,1-Dichloroethane	27.8	2.0	0.40	ug/l	25.0	1.22	106	65-130			
1,2-Dichloroethane	38.5	2.0	0.28	ug/l	25.0	17.2	85	60-140			
1,1-Dichloroethene	20.4	5.0	0.42	ug/l	25.0	ND	81	60-130			
cis-1,2-Dichloroethene	26.5	2.0	0.32	ug/l	25.0	0.630	103	65-130			
trans-1,2-Dichloroethene	22.8	2.0	0.30	ug/l	25.0	ND	91	65-130			
1,2-Dichloropropane	25.0	2.0	0.35	ug/l	25.0	ND	100	65-130			
1,3-Dichloropropane	24.3	2.0	0.32	ug/l	25.0	ND	97	65-135			
2,2-Dichloropropane	26.7	2.0	0.34	ug/l	25.0	ND	107	60-145			
cis-1,3-Dichloropropene	29.3	2.0	0.22	ug/l	25.0	ND	117	70-130			
trans-1,3-Dichloropropene	22.2	2.0	0.32	ug/l	25.0	ND	89	65-135			
1,1-Dichloropropene	25.2	2.0	0.28	ug/l	25.0	ND	101	70-135			

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Project ID: Former Cenco Refinery
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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers																																																																																																																																																																																																																																																																																																																																																																																																																								
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Source: ISA0985-04																																																																																																																																																																																																																																																																																																																																																																																																																																			
<table border="1"><thead><tr><th>Analyte</th><th>Result</th><th>Reporting Limit</th><th>MDL</th><th>Units</th><th>Spike Level</th><th>Source Result</th><th>%REC</th><th>%REC Limits</th><th>RPD RPD</th><th>RPD Limit</th><th>Data Qualifiers</th></tr></thead><tbody><tr><td>Chlorobenzene</td><td>25.7</td><td>2.0</td><td>0.25</td><td>ug/l</td><td>25.0</td><td>ND</td><td>103</td><td>65-130</td><td></td><td></td><td></td></tr><tr><td>Hexachlorobutadiene</td><td>21.2</td><td>5.0</td><td>0.38</td><td>ug/l</td><td>25.0</td><td>ND</td><td>85</td><td>60-135</td><td></td><td></td><td></td></tr><tr><td>Isopropylbenzene</td><td>26.7</td><td>2.0</td><td>0.25</td><td>ug/l</td><td>25.0</td><td>ND</td><td>107</td><td>70-135</td><td></td><td></td><td></td></tr><tr><td>Isopropyltoluene</td><td>26.4</td><td>2.0</td><td>0.28</td><td>ug/l</td><td>25.0</td><td>ND</td><td>106</td><td>65-130</td><td></td><td></td><td></td></tr><tr><td>Methylene chloride</td><td>26.6</td><td>5.0</td><td>0.95</td><td>ug/l</td><td>25.0</td><td>ND</td><td>106</td><td>50-135</td><td></td><td></td><td></td></tr><tr><td>Naphthalene</td><td>24.4</td><td>5.0</td><td>0.41</td><td>ug/l</td><td>25.0</td><td>0.420</td><td>96</td><td>50-140</td><td></td><td></td><td></td></tr><tr><td>Propylbenzene</td><td>29.0</td><td>2.0</td><td>0.27</td><td>ug/l</td><td>25.0</td><td>ND</td><td>116</td><td>70-135</td><td></td><td></td><td></td></tr><tr><td>Tyrene</td><td>15.4</td><td>2.0</td><td>0.20</td><td>ug/l</td><td>25.0</td><td>ND</td><td>62</td><td>50-145</td><td></td><td></td><td></td></tr><tr><td>1,1,1,2-Tetrachloroethane</td><td>23.5</td><td>5.0</td><td>0.27</td><td>ug/l</td><td>25.0</td><td>ND</td><td>94</td><td>65-140</td><td></td><td></td><td></td></tr><tr><td>1,1,2,2-Tetrachloroethane</td><td>29.0</td><td>2.0</td><td>0.30</td><td>ug/l</td><td>25.0</td><td>ND</td><td>116</td><td>55-135</td><td></td><td></td><td></td></tr><tr><td>Trichloroethene</td><td>22.6</td><td>2.0</td><td>0.32</td><td>ug/l</td><td>25.0</td><td>ND</td><td>90</td><td>65-130</td><td></td><td></td><td></td></tr><tr><td>Toluene</td><td>26.2</td><td>2.0</td><td>0.36</td><td>ug/l</td><td>25.0</td><td>ND</td><td>105</td><td>70-125</td><td></td><td></td><td></td></tr><tr><td>1,2,3-Trichlorobenzene</td><td>23.4</td><td>5.0</td><td>0.30</td><td>ug/l</td><td>25.0</td><td>ND</td><td>94</td><td>60-135</td><td></td><td></td><td></td></tr><tr><td>2,4-Trichlorobenzene</td><td>23.8</td><td>5.0</td><td>0.48</td><td>ug/l</td><td>25.0</td><td>ND</td><td>95</td><td>65-135</td><td></td><td></td><td></td></tr><tr><td>1,1-Trichloroethane</td><td>25.4</td><td>2.0</td><td>0.30</td><td>ug/l</td><td>25.0</td><td>ND</td><td>102</td><td>65-140</td><td></td><td></td><td></td></tr><tr><td>1,1,2-Trichloroethane</td><td>26.2</td><td>2.0</td><td>0.30</td><td>ug/l</td><td>25.0</td><td>ND</td><td>105</td><td>65-130</td><td></td><td></td><td></td></tr><tr><td>1,1-Chloroethene</td><td>23.8</td><td>2.0</td><td>0.26</td><td>ug/l</td><td>25.0</td><td>ND</td><td>95</td><td>65-125</td><td></td><td></td><td></td></tr><tr><td>1,1-Chlorofluoromethane</td><td>24.1</td><td>5.0</td><td>0.34</td><td>ug/l</td><td>25.0</td><td>ND</td><td>96</td><td>60-145</td><td></td><td></td><td></td></tr><tr><td>1,2,3-Trichloropropane</td><td>24.8</td><td>10</td><td>0.40</td><td>ug/l</td><td>25.0</td><td>ND</td><td>99</td><td>55-135</td><td></td><td></td><td></td></tr><tr><td>1,2,4-Trimethylbenzene</td><td>23.4</td><td>2.0</td><td>0.23</td><td>ug/l</td><td>25.0</td><td>ND</td><td>93</td><td>55-135</td><td></td><td></td><td></td></tr><tr><td>1,3,5-Trimethylbenzene</td><td>25.8</td><td>2.0</td><td>0.26</td><td>ug/l</td><td>25.0</td><td>ND</td><td>103</td><td>70-130</td><td></td><td></td><td></td></tr><tr><td>Vinyl chloride</td><td>26.3</td><td>5.0</td><td>0.40</td><td>ug/l</td><td>25.0</td><td>ND</td><td>105</td><td>45-140</td><td></td><td></td><td></td></tr><tr><td>m,p-Xylenes</td><td>52.3</td><td>2.0</td><td>0.60</td><td>ug/l</td><td>50.0</td><td>ND</td><td>105</td><td>65-130</td><td></td><td></td><td></td></tr><tr><td>Xylene</td><td>25.6</td><td>2.0</td><td>0.30</td><td>ug/l</td><td>25.0</td><td>ND</td><td>103</td><td>65-125</td><td></td><td></td><td></td></tr><tr><td>Xylenes, Total</td><td>78.0</td><td>4.0</td><td>0.90</td><td>ug/l</td><td>75.0</td><td>ND</td><td>104</td><td>60-130</td><td></td><td></td><td></td></tr><tr><td>Di-isopropyl Ether (DIPE)</td><td>40.7</td><td>5.0</td><td>0.25</td><td>ug/l</td><td>25.0</td><td>16.3</td><td>98</td><td>60-140</td><td></td><td></td><td></td></tr><tr><td>ethyl tert-Butyl Ether (ETBE)</td><td>26.3</td><td>5.0</td><td>0.28</td><td>ug/l</td><td>25.0</td><td>ND</td><td>105</td><td>60-135</td><td></td><td></td><td></td></tr><tr><td>ethyl-tert-butyl Ether (MTBE)</td><td>25.0</td><td>5.0</td><td>0.32</td><td>ug/l</td><td>25.0</td><td>ND</td><td>100</td><td>55-145</td><td></td><td></td><td></td></tr><tr><td>tert-Amyl Methyl Ether (TAME)</td><td>26.8</td><td>5.0</td><td>0.33</td><td>ug/l</td><td>25.0</td><td>ND</td><td>107</td><td>60-140</td><td></td><td></td><td></td></tr><tr><td>tert-Butanol (TBA)</td><td>140</td><td>50</td><td>6.5</td><td>ug/l</td><td>125</td><td>16.6</td><td>99</td><td>65-140</td><td></td><td></td><td></td></tr><tr><td>Surrogate: 4-Bromofluorobenzene</td><td>24.5</td><td></td><td></td><td>ug/l</td><td>25.0</td><td></td><td>98</td><td>80-120</td><td></td><td></td><td></td></tr><tr><td>Surrogate: Dibromofluoromethane</td><td>26.7</td><td></td><td></td><td>ug/l</td><td>25.0</td><td></td><td>107</td><td>80-120</td><td></td><td></td><td></td></tr><tr><td>Surrogate: Toluene-d8</td><td>26.5</td><td></td><td></td><td>ug/l</td><td>25.0</td><td></td><td>106</td><td>80-120</td><td></td><td></td><td></td></tr></tbody></table>												Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers	Chlorobenzene	25.7	2.0	0.25	ug/l	25.0	ND	103	65-130				Hexachlorobutadiene	21.2	5.0	0.38	ug/l	25.0	ND	85	60-135				Isopropylbenzene	26.7	2.0	0.25	ug/l	25.0	ND	107	70-135				Isopropyltoluene	26.4	2.0	0.28	ug/l	25.0	ND	106	65-130				Methylene chloride	26.6	5.0	0.95	ug/l	25.0	ND	106	50-135				Naphthalene	24.4	5.0	0.41	ug/l	25.0	0.420	96	50-140				Propylbenzene	29.0	2.0	0.27	ug/l	25.0	ND	116	70-135				Tyrene	15.4	2.0	0.20	ug/l	25.0	ND	62	50-145				1,1,1,2-Tetrachloroethane	23.5	5.0	0.27	ug/l	25.0	ND	94	65-140				1,1,2,2-Tetrachloroethane	29.0	2.0	0.30	ug/l	25.0	ND	116	55-135				Trichloroethene	22.6	2.0	0.32	ug/l	25.0	ND	90	65-130				Toluene	26.2	2.0	0.36	ug/l	25.0	ND	105	70-125				1,2,3-Trichlorobenzene	23.4	5.0	0.30	ug/l	25.0	ND	94	60-135				2,4-Trichlorobenzene	23.8	5.0	0.48	ug/l	25.0	ND	95	65-135				1,1-Trichloroethane	25.4	2.0	0.30	ug/l	25.0	ND	102	65-140				1,1,2-Trichloroethane	26.2	2.0	0.30	ug/l	25.0	ND	105	65-130				1,1-Chloroethene	23.8	2.0	0.26	ug/l	25.0	ND	95	65-125				1,1-Chlorofluoromethane	24.1	5.0	0.34	ug/l	25.0	ND	96	60-145				1,2,3-Trichloropropane	24.8	10	0.40	ug/l	25.0	ND	99	55-135				1,2,4-Trimethylbenzene	23.4	2.0	0.23	ug/l	25.0	ND	93	55-135				1,3,5-Trimethylbenzene	25.8	2.0	0.26	ug/l	25.0	ND	103	70-130				Vinyl chloride	26.3	5.0	0.40	ug/l	25.0	ND	105	45-140				m,p-Xylenes	52.3	2.0	0.60	ug/l	50.0	ND	105	65-130				Xylene	25.6	2.0	0.30	ug/l	25.0	ND	103	65-125				Xylenes, Total	78.0	4.0	0.90	ug/l	75.0	ND	104	60-130				Di-isopropyl Ether (DIPE)	40.7	5.0	0.25	ug/l	25.0	16.3	98	60-140				ethyl tert-Butyl Ether (ETBE)	26.3	5.0	0.28	ug/l	25.0	ND	105	60-135				ethyl-tert-butyl Ether (MTBE)	25.0	5.0	0.32	ug/l	25.0	ND	100	55-145				tert-Amyl Methyl Ether (TAME)	26.8	5.0	0.33	ug/l	25.0	ND	107	60-140				tert-Butanol (TBA)	140	50	6.5	ug/l	125	16.6	99	65-140				Surrogate: 4-Bromofluorobenzene	24.5			ug/l	25.0		98	80-120				Surrogate: Dibromofluoromethane	26.7			ug/l	25.0		107	80-120				Surrogate: Toluene-d8	26.5			ug/l	25.0		106	80-120			
Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers																																																																																																																																																																																																																																																																																																																																																																																																																								
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Hexachlorobutadiene	21.2	5.0	0.38	ug/l	25.0	ND	85	60-135																																																																																																																																																																																																																																																																																																																																																																																																																											
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Isopropyltoluene	26.4	2.0	0.28	ug/l	25.0	ND	106	65-130																																																																																																																																																																																																																																																																																																																																																																																																																											
Methylene chloride	26.6	5.0	0.95	ug/l	25.0	ND	106	50-135																																																																																																																																																																																																																																																																																																																																																																																																																											
Naphthalene	24.4	5.0	0.41	ug/l	25.0	0.420	96	50-140																																																																																																																																																																																																																																																																																																																																																																																																																											
Propylbenzene	29.0	2.0	0.27	ug/l	25.0	ND	116	70-135																																																																																																																																																																																																																																																																																																																																																																																																																											
Tyrene	15.4	2.0	0.20	ug/l	25.0	ND	62	50-145																																																																																																																																																																																																																																																																																																																																																																																																																											
1,1,1,2-Tetrachloroethane	23.5	5.0	0.27	ug/l	25.0	ND	94	65-140																																																																																																																																																																																																																																																																																																																																																																																																																											
1,1,2,2-Tetrachloroethane	29.0	2.0	0.30	ug/l	25.0	ND	116	55-135																																																																																																																																																																																																																																																																																																																																																																																																																											
Trichloroethene	22.6	2.0	0.32	ug/l	25.0	ND	90	65-130																																																																																																																																																																																																																																																																																																																																																																																																																											
Toluene	26.2	2.0	0.36	ug/l	25.0	ND	105	70-125																																																																																																																																																																																																																																																																																																																																																																																																																											
1,2,3-Trichlorobenzene	23.4	5.0	0.30	ug/l	25.0	ND	94	60-135																																																																																																																																																																																																																																																																																																																																																																																																																											
2,4-Trichlorobenzene	23.8	5.0	0.48	ug/l	25.0	ND	95	65-135																																																																																																																																																																																																																																																																																																																																																																																																																											
1,1-Trichloroethane	25.4	2.0	0.30	ug/l	25.0	ND	102	65-140																																																																																																																																																																																																																																																																																																																																																																																																																											
1,1,2-Trichloroethane	26.2	2.0	0.30	ug/l	25.0	ND	105	65-130																																																																																																																																																																																																																																																																																																																																																																																																																											
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1,2,3-Trichloropropane	24.8	10	0.40	ug/l	25.0	ND	99	55-135																																																																																																																																																																																																																																																																																																																																																																																																																											
1,2,4-Trimethylbenzene	23.4	2.0	0.23	ug/l	25.0	ND	93	55-135																																																																																																																																																																																																																																																																																																																																																																																																																											
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Vinyl chloride	26.3	5.0	0.40	ug/l	25.0	ND	105	45-140																																																																																																																																																																																																																																																																																																																																																																																																																											
m,p-Xylenes	52.3	2.0	0.60	ug/l	50.0	ND	105	65-130																																																																																																																																																																																																																																																																																																																																																																																																																											
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Xylenes, Total	78.0	4.0	0.90	ug/l	75.0	ND	104	60-130																																																																																																																																																																																																																																																																																																																																																																																																																											
Di-isopropyl Ether (DIPE)	40.7	5.0	0.25	ug/l	25.0	16.3	98	60-140																																																																																																																																																																																																																																																																																																																																																																																																																											
ethyl tert-Butyl Ether (ETBE)	26.3	5.0	0.28	ug/l	25.0	ND	105	60-135																																																																																																																																																																																																																																																																																																																																																																																																																											
ethyl-tert-butyl Ether (MTBE)	25.0	5.0	0.32	ug/l	25.0	ND	100	55-145																																																																																																																																																																																																																																																																																																																																																																																																																											
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tert-Butanol (TBA)	140	50	6.5	ug/l	125	16.6	99	65-140																																																																																																																																																																																																																																																																																																																																																																																																																											
Surrogate: 4-Bromofluorobenzene	24.5			ug/l	25.0		98	80-120																																																																																																																																																																																																																																																																																																																																																																																																																											
Surrogate: Dibromofluoromethane	26.7			ug/l	25.0		107	80-120																																																																																																																																																																																																																																																																																																																																																																																																																											
Surrogate: Toluene-d8	26.5			ug/l	25.0		106	80-120																																																																																																																																																																																																																																																																																																																																																																																																																											

TestAmerica Irvine

Lashmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9A15016 Extracted: 01/15/09											
Matrix Spike Dup Analyzed: 01/15/2009 (9A15016-MSD1)											
Source: ISA0985-04											
Benzene	28.5	2.0	0.28	ug/l	25.0	ND	114	65-125	8	20	
Bromobenzene	25.4	5.0	0.27	ug/l	25.0	ND	102	70-125	8	20	
Bromochloromethane	27.3	5.0	0.40	ug/l	25.0	ND	109	65-135	11	25	
Bromodichloromethane	25.5	2.0	0.30	ug/l	25.0	ND	102	70-135	9	20	
Bromoform	16.9	5.0	0.40	ug/l	25.0	ND	67	55-135	11	25	
Bromomethane	28.8	5.0	0.42	ug/l	25.0	ND	115	55-145	8	25	
n-Butylbenzene	31.6	5.0	0.37	ug/l	25.0	ND	126	65-135	7	20	
sec-Butylbenzene	30.9	5.0	0.25	ug/l	25.0	ND	124	70-125	8	20	
tert-Butylbenzene	28.9	5.0	0.22	ug/l	25.0	ND	116	65-130	8	20	
Carbon tetrachloride	25.7	5.0	0.28	ug/l	25.0	ND	103	65-140	10	25	
Chlorobenzene	28.4	2.0	0.36	ug/l	25.0	ND	114	75-125	11	20	
Chloroethane	31.1	5.0	0.40	ug/l	25.0	ND	124	55-140	21	25	
Chloroform	26.2	2.0	0.33	ug/l	25.0	ND	105	65-135	7	20	
Chloromethane	25.6	5.0	0.40	ug/l	25.0	ND	102	45-145	8	25	
2-Chlorotoluene	28.1	5.0	0.28	ug/l	25.0	ND	113	65-135	8	20	
4-Chlorotoluene	28.6	5.0	0.29	ug/l	25.0	ND	114	70-135	8	20	
1,2-Dibromo-3-chloropropane	19.3	5.0	0.97	ug/l	25.0	ND	77	45-145	7	30	
Dibromochloromethane	21.6	2.0	0.40	ug/l	25.0	ND	86	65-140	8	25	
1,2-Dibromoethane (EDB)	24.4	2.0	0.40	ug/l	25.0	ND	98	70-130	8	25	
Dibromomethane	26.4	2.0	0.36	ug/l	25.0	ND	105	65-135	9	25	
1,2-Dichlorobenzene	26.7	2.0	0.32	ug/l	25.0	ND	107	75-125	7	20	
1,3-Dichlorobenzene	27.6	2.0	0.35	ug/l	25.0	ND	110	75-125	9	20	
1,4-Dichlorobenzene	24.4	2.0	0.37	ug/l	25.0	ND	98	75-125	9	20	
Dichlorodifluoromethane	25.1	5.0	0.26	ug/l	25.0	ND	100	25-155	9	30	
1,1-Dichloroethane	30.3	2.0	0.40	ug/l	25.0	1.22	116	65-130	9	20	
1,2-Dichloroethane	41.0	2.0	0.28	ug/l	25.0	17.2	95	60-140	6	20	
1,1-Dichloroethene	21.9	5.0	0.42	ug/l	25.0	ND	88	60-130	7	20	
cis-1,2-Dichloroethene	28.5	2.0	0.32	ug/l	25.0	0.630	112	65-130	7	20	
trans-1,2-Dichloroethene	24.5	2.0	0.30	ug/l	25.0	ND	98	65-130	7	20	
1,2-Dichloropropane	27.4	2.0	0.35	ug/l	25.0	ND	110	65-130	9	20	
1,3-Dichloropropane	26.9	2.0	0.32	ug/l	25.0	ND	107	65-135	10	25	
2,2-Dichloropropane	28.9	2.0	0.34	ug/l	25.0	ND	116	60-145	8	25	
cis-1,3-Dichloropropene	31.6	2.0	0.22	ug/l	25.0	ND	127	70-130	8	20	
trans-1,3-Dichloropropene	23.7	2.0	0.32	ug/l	25.0	ND	95	65-135	7	25	
1,1-Dichloropropene	27.9	2.0	0.28	ug/l	25.0	ND	111	70-135	10	20	

TestAmerica Irvine

Sushmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9A15016 Extracted: 01/15/09											
Matrix Spike Dup Analyzed: 01/15/2009 (9A15016-MSD1)											
Source: ISA0985-04											
Thylbenzene											
28.8 2.0 0.25 ug/l 25.0 ND 115 65-130 11 20											
Hexachlorobutadiene											
21.9 5.0 0.38 ug/l 25.0 ND 87 60-135 3 20											
Isopropylbenzene											
28.9 2.0 0.25 ug/l 25.0 ND 116 70-135 8 20											
-Isopropyltoluene											
28.8 2.0 0.28 ug/l 25.0 ND 115 65-130 9 20											
Methylene chloride											
28.5 5.0 0.95 ug/l 25.0 ND 114 50-135 7 20											
Naphthalene											
27.1 5.0 0.41 ug/l 25.0 0.420 107 50-140 11 30											
-Propylbenzene											
31.3 2.0 0.27 ug/l 25.0 ND 125 70-135 7 20											
Tyrene											
12.6 2.0 0.20 ug/l 25.0 ND 50 50-145 20 30											
1,1,1,2-Tetrachloroethane											
26.4 5.0 0.27 ug/l 25.0 ND 106 65-140 11 20											
1,1,2,2-Tetrachloroethane											
30.7 2.0 0.30 ug/l 25.0 ND 123 55-135 6 30											
Tetrachloroethene											
25.9 2.0 0.32 ug/l 25.0 ND 103 65-130 14 20											
Toluene											
28.6 2.0 0.36 ug/l 25.0 ND 114 70-125 9 20											
1,2,3-Trichlorobenzene											
26.0 5.0 0.30 ug/l 25.0 ND 104 60-135 11 20											
2,4-Trichlorobenzene											
26.1 5.0 0.48 ug/l 25.0 ND 104 65-135 9 20											
1,1-Trichloroethane											
27.0 2.0 0.30 ug/l 25.0 ND 108 65-140 6 20											
1,1,2-Trichloroethane											
27.7 2.0 0.30 ug/l 25.0 ND 111 65-130 6 25											
Trichloroethene											
26.1 2.0 0.26 ug/l 25.0 ND 104 65-125 9 20											
Trichlorofluoromethane											
26.5 5.0 0.34 ug/l 25.0 ND 106 60-145 10 25											
1,2,3-Trichloropropane											
26.3 10 0.40 ug/l 25.0 ND 105 55-135 6 30											
2,4-Trimethylbenzene											
24.4 2.0 0.23 ug/l 25.0 ND 98 55-135 4 25											
3,5-Trimethylbenzene											
27.6 2.0 0.26 ug/l 25.0 ND 110 70-130 7 20											
Vinyl chloride											
28.9 5.0 0.40 ug/l 25.0 ND 115 45-140 9 30											
m,p-Xylenes											
57.7 2.0 0.60 ug/l 50.0 ND 115 65-130 10 25											
Xylene											
28.2 2.0 0.30 ug/l 25.0 ND 113 65-125 10 20											
Xylenes, Total											
86.0 4.0 0.90 ug/l 75.0 ND 115 60-130 10 20											
Di-isopropyl Ether (DIPE)											
43.5 5.0 0.25 ug/l 25.0 16.3 109 60-140 7 25											
ethyl tert-Butyl Ether (ETBE)											
28.6 5.0 0.28 ug/l 25.0 ND 114 60-135 8 25											
Ethyl-tert-butyl Ether (MTBE)											
26.6 5.0 0.32 ug/l 25.0 ND 106 55-145 6 25											
tert-Amyl Methyl Ether (TAME)											
28.7 5.0 0.33 ug/l 25.0 ND 115 60-140 7 30											
tert-Butanol (TBA)											
150 50 6.5 ug/l 125 16.6 107 65-140 7 25											
Surrogate: 4-Bromo fluoro benzene											
25.3 25.0 101 80-120											
Surrogate: Dibromo fluoro methane											
27.0 25.0 108 80-120											
Surrogate: Toluene-d8											
26.6 25.0 106 80-120											

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Rushmitha Reddy
Project Manager

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ISA0950 <Page 29 of 34>

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9A13146 Extracted: 01/13/09											
Blank Analyzed: 01/13/2009 (9A13146-BLK1)											
Chromium VI	ND	0.0020	0.00025	mg/l							
LCS Analyzed: 01/13/2009 (9A13146-BS1)											
Chromium VI	0.0520	0.0020	0.00025	mg/l	0.0500		104	90-110			
Matrix Spike Analyzed: 01/14/2009 (9A13146-MS1)											
Chromium VI	0.0538	0.0020	0.00025	mg/l	0.0500	ND	108	85-115			
Matrix Spike Dup Analyzed: 01/14/2009 (9A13146-MSD1)											
Chromium VI	0.0542	0.0020	0.00025	mg/l	0.0500	ND	108	85-115	1	20	
Batch: 9A14053 Extracted: 01/14/09											
Blank Analyzed: 01/14/2009 (9A14053-BLK1)											
Alkalinity as CaCO ₃	ND	2.0	2.0	mg/l							
Duplicate Analyzed: 01/14/2009 (9A14053-DUP1)											
Alkalinity as CaCO ₃	166	2.0	2.0	mg/l		164			1	20	
Reference Analyzed: 01/14/2009 (9A14053-SRM1)											
Alkalinity as CaCO ₃	228	2.0	2.0	mg/l	223		102	90-110			
Batch: 9A14062 Extracted: 01/14/09											
Blank Analyzed: 01/14/2009 (9A14062-BLK1)											
Ferrous Iron	ND	0.10	0.10	mg/l							

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Sushmitha Reddy
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Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9A14062 Extracted: 01/14/09											
CS Analyzed: 01/14/2009 (9A14062-BS1)											
Ferrous Iron	5.00	0.10	0.10	mg/l	5.00		100	80-120			
Duplicate Analyzed: 01/14/2009 (9A14062-DUP1)						Source: ISA0929-01					
Ferrous Iron	ND	0.10	0.10	mg/l		ND				20	
Duplicate Analyzed: 01/14/2009 (9A14062-DUP2)											
Ferrous Iron	0.200	0.10	0.10	mg/l		0.200			0	20	
Batch: 9A14072 Extracted: 01/14/09											
Blank Analyzed: 01/14/2009 (9A14072-BLK1)											
Nitrate-N	ND	0.11	0.060	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
CS Analyzed: 01/14/2009 (9A14072-BS1)											
Nitrate-N	1.13	0.11	0.060	mg/l	1.13		100	90-110			
Sulfate	9.72	0.50	0.20	mg/l	10.0		97	90-110			
Matrix Spike Analyzed: 01/14/2009 (9A14072-MS1)											
Nitrate-N	11.4	1.1	0.60	mg/l	11.3	ND	101	80-120			
Sulfate	164	5.0	2.0	mg/l	100	66.7	98	80-120			
Matrix Spike Analyzed: 01/14/2009 (9A14072-MS2)											
Nitrate-N	11.4	2.2	1.2	mg/l	11.3	ND	101	80-120			
Sulfate	322	10	4.0	mg/l	100	248	74	80-120			M2
Matrix Spike Dup Analyzed: 01/14/2009 (9A14072-MSD1)											
Nitrate-N	11.2	1.1	0.60	mg/l	11.3	ND	99	80-120	2	20	
Sulfate	165	5.0	2.0	mg/l	100	66.7	98	80-120	0	20	

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801 N. Brand Blvd., Suite 1120
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Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

METHOD BLANK/QC DATA

RSK SOP-175 - Dissolved Gases in Water

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9A15008 Extracted: 01/15/09											
Blank Analyzed: 01/15/2009 (9A15008-BLK1)											
Methane	ND	0.0010	0.00050	mg/L							
LCS Analyzed: 01/15/2009 (9A15008-BS1)											
Methane	0.0445	0.0010	0.00050	mg/L	0.04720		94	70-125			
LCS Dup Analyzed: 01/15/2009 (9A15008-BSD1)											
Methane	0.0458	0.0010	0.00050	mg/L	0.04720		97	70-125	3	20	

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Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

DATA QUALIFIERS AND DEFINITIONS

- C** Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M2** The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- Z2** Surrogate recovery was above the acceptance limits. Data not impacted.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue, Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001
Report Number: ISA0950

Sampled: 01/13/09
Received: 01/13/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 300.0	Water	X	X
EPA 7199	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8260B	Water	X	X
SM 3500-Fe D	Water		
SM2320B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica Los Angeles

3585 Cadillac Ave., Suite A - Costa Mesa, CA 92626

Method Performed: RSK SOP-175

Samples: ISA0950-03

TestAmerica Irvine

Sushmitha Reddy
Project Manager

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ISA0950 <Page 34 of 34>

CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 280-3297
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (800) 370-4887 FAX (800) 370-1046
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Page 1 of 1

TAL-0013(1007)

Client Name/Address: ARCADIS 801 N. Brand Blvd. #110 Glendale, CA 91303			Project/PO Number: Former CENCO Refining Buu 54205.0001			Analysis Required									
Project Manager: Leah Levy			Phone Number: (818) 502-9470			Handwritten analysis codes (e.g., Hg, Pb, As, etc.)									
Sampler: Maher Zein			Fax Number: (818) 502-9476			Handwritten analysis codes (e.g., Hg, Pb, As, etc.)									
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Special Instructions								
TBD11309	W	VGA	3	1.13.09	1530	HCl	✓	✓							
MNH-603-0109	W	VGA	7	1	0845	Vaseline	✓	✓	✓						
MNH-606-0109	W	VGA	12		0945		✓	✓	✓	✓	✓	✓	✓	✓	✓
W-1HA-0109	W	P	7		1315		✓	✓	✓						
W-1HB-0109	W	P	7		1415		✓	✓	✓						
W-7-0109	W	P	7		1450		✓	✓	✓						
W-8-0109	W	P	7		1515		✓	✓	✓						
<i>No More Samples</i>															
Relinquished By: Maher	Date/Time: 01.13.09 1530	Received By: <i>Greenlee TA</i>	Date/Time: 01/13/09 1530	Turnaround Time: (Check)											
Relinquished By: <i>Releaser TA</i>	Date/Time: 01/13/09 1730	Received By:	Date/Time:	same day _____ 72 hours _____											
Relinquished By: <i>Releaser TA</i>	Date/Time: 01/13/09 1730	Received in Lab By: <i>Jay Morgan</i>	Date/Time: 01/13/09 1730	24 hours _____ 5 days _____											
				48 hours _____ normal <input checked="" type="checkbox"/>											
				Sample integrity: (Check)											
				Intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/> 4BC											

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

048

LABORATORY REPORT

Prepared For: Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project: Former Cenco Refinery
B0054205.0001.00001

Sampled: 01/14/09
Received: 01/14/09
Issued: 02/03/09 16:00

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

ADDITIONAL INFORMATION: Report reissued with MDL values

LABORATORY ID	CLIENT ID	MATRIX
ISA1081-01	W-14C-0109	Water
ISA1081-02	W-15A-0109	Water
ISA1081-03	W-15B-0109	Water
ISA1081-04	TB011409	Water

Reviewed By:

TestAmerica Irvine

Dashmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
Sample ID: ISA1081-01 (W-14C-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A20035	25	50	120	1	01/20/09	01/20/09	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1081-02 (W-15A-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A18006	25	50	230	1	01/18/09	01/18/09	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1081-03 (W-15B-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A18006	25	50	340	1	01/18/09	01/18/09	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
<i>115 %</i>									
<i>121 %</i>									
<i>116 %</i>									

TestAmerica Irvine

Sushmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1081-01 (W-14C-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A20007	0.28	2.0	2.5	1	01/20/09	01/20/09	
Bromobenzene	EPA 8260B	9A20007	0.27	5.0	ND	1	01/20/09	01/20/09	
Bromoform	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Bromochloromethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Bromodichloromethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Butylbenzene	EPA 8260B	9A20007	0.37	5.0	ND	1	01/20/09	01/20/09	
cis-Butylbenzene	EPA 8260B	9A20007	0.25	5.0	1.0	1	01/20/09	01/20/09	J
trans-Butylbenzene	EPA 8260B	9A20007	0.22	5.0	ND	1	01/20/09	01/20/09	
Carbon tetrachloride	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
Chlorobenzene	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
Chloroethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Chloroform	EPA 8260B	9A20007	0.33	2.0	ND	1	01/20/09	01/20/09	
Chloromethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
2-Chlorotoluene	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
Chlorotoluene	EPA 8260B	9A20007	0.29	5.0	ND	1	01/20/09	01/20/09	
2-Dibromo-3-chloropropane	EPA 8260B	9A20007	0.97	5.0	ND	1	01/20/09	01/20/09	
Dibromochloromethane	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
2-Dibromoethane (EDB)	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
Dibromomethane	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
1,2-Dichlorobenzene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
1,3-Dichlorobenzene	EPA 8260B	9A20007	0.35	2.0	ND	1	01/20/09	01/20/09	
4-Dichlorobenzene	EPA 8260B	9A20007	0.37	2.0	ND	1	01/20/09	01/20/09	
Dichlorodifluoromethane	EPA 8260B	9A20007	0.26	5.0	ND	1	01/20/09	01/20/09	
1,1-Dichloroethane	EPA 8260B	9A20007	0.40	2.0	3.4	1	01/20/09	01/20/09	
2-Dichloroethane	EPA 8260B	9A20007	0.28	2.0	0.51	1	01/20/09	01/20/09	J
-Dichloroethene	EPA 8260B	9A20007	0.42	5.0	17	1	01/20/09	01/20/09	
cis-1,2-Dichloroethene	EPA 8260B	9A20007	0.32	2.0	34	1	01/20/09	01/20/09	
trans-1,2-Dichloroethene	EPA 8260B	9A20007	0.30	2.0	8.8	1	01/20/09	01/20/09	
2-Dichloropropane	EPA 8260B	9A20007	0.35	2.0	ND	1	01/20/09	01/20/09	
1,3-Dichloropropane	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
2,2-Dichloropropane	EPA 8260B	9A20007	0.34	2.0	ND	1	01/20/09	01/20/09	
1,1,3-Dichloropropene	EPA 8260B	9A20007	0.22	2.0	ND	1	01/20/09	01/20/09	
trans-1,3-Dichloropropene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
1,1-Dichloropropene	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
Phenylbenzene	EPA 8260B	9A20007	0.25	2.0	ND	1	01/20/09	01/20/09	
Trachlorobutadiene	EPA 8260B	9A20007	0.38	5.0	ND	1	01/20/09	01/20/09	
Isopropylbenzene	EPA 8260B	9A20007	0.25	2.0	0.69	1	01/20/09	01/20/09	J
Isopropyltoluene	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
Methylene chloride	EPA 8260B	9A20007	0.95	5.0	ND	1	01/20/09	01/20/09	
Naphthalene	EPA 8260B	9A20007	0.41	5.0	0.53	1	01/20/09	01/20/09	J

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1081-01 (W-14C-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A20007	0.27	2.0	ND	1	01/20/09	01/20/09	
Styrene	EPA 8260B	9A20007	0.20	2.0	ND	1	01/20/09	01/20/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A20007	0.27	5.0	ND	1	01/20/09	01/20/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Tetrachloroethene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
Toluene	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
1,2,3-Trichlorobenzene	EPA 8260B	9A20007	0.30	5.0	ND	1	01/20/09	01/20/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A20007	0.48	5.0	ND	1	01/20/09	01/20/09	
1,1,1-Trichloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
1,1,2-Trichloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Trichloroethene	EPA 8260B	9A20007	0.26	2.0	30	1	01/20/09	01/20/09	
Trichlorofluoromethane	EPA 8260B	9A20007	0.34	5.0	ND	1	01/20/09	01/20/09	
1,2,3-Trichloropropane	EPA 8260B	9A20007	0.40	10	ND	1	01/20/09	01/20/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A20007	0.23	2.0	ND	1	01/20/09	01/20/09	
1,3,5-Trimethylbenzene	EPA 8260B	9A20007	0.26	2.0	ND	1	01/20/09	01/20/09	
Vinyl chloride	EPA 8260B	9A20007	0.40	5.0	0.89	1	01/20/09	01/20/09	J
m,p-Xylenes	EPA 8260B	9A20007	0.60	2.0	ND	1	01/20/09	01/20/09	
o-Xylene	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Xylenes, Total	EPA 8260B	9A20007	0.90	4.0	ND	1	01/20/09	01/20/09	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A20007	0.25	5.0	0.56	1	01/20/09	01/20/09	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A20007	0.32	5.0	ND	1	01/20/09	01/20/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A20007	0.33	5.0	ND	1	01/20/09	01/20/09	
tert-Butanol (TBA)	EPA 8260B	9A20007	6.5	50	ND	1	01/20/09	01/20/09	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							101 %		
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							94 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							97 %		

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1081-02 (W-15A-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A20007	0.28	2.0	7.4	1	01/20/09	01/20/09	
Bromobenzene	EPA 8260B	9A20007	0.27	5.0	ND	1	01/20/09	01/20/09	
Bromochloromethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Bromodichloromethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Bromoform	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Bromomethane	EPA 8260B	9A20007	0.42	5.0	ND	1	01/20/09	01/20/09	
1-Butylbenzene	EPA 8260B	9A20007	0.37	5.0	0.94	1	01/20/09	01/20/09	J
sec-Butylbenzene	EPA 8260B	9A20007	0.25	5.0	1.2	1	01/20/09	01/20/09	J
tert-Butylbenzene	EPA 8260B	9A20007	0.22	5.0	ND	1	01/20/09	01/20/09	
Carbon tetrachloride	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
Chlorobenzene	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
Chloroethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Chloroform	EPA 8260B	9A20007	0.33	2.0	ND	1	01/20/09	01/20/09	
Chloromethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
2-Chlorotoluene	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
-Chlorotoluene	EPA 8260B	9A20007	0.29	5.0	ND	1	01/20/09	01/20/09	
,2-Dibromo-3-chloropropane	EPA 8260B	9A20007	0.97	5.0	ND	1	01/20/09	01/20/09	
Dibromochloromethane	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
,2-Dibromoethane (EDB)	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
Dibromomethane	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
1,2-Dichlorobenzene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
1,3-Dichlorobenzene	EPA 8260B	9A20007	0.35	2.0	ND	1	01/20/09	01/20/09	
4-Dichlorobenzene	EPA 8260B	9A20007	0.37	2.0	ND	1	01/20/09	01/20/09	
Dichlorodifluoromethane	EPA 8260B	9A20007	0.26	5.0	ND	1	01/20/09	01/20/09	
1,1-Dichloroethane	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
2-Dichloroethane	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
,1-Dichloroethene	EPA 8260B	9A20007	0.42	5.0	ND	1	01/20/09	01/20/09	
cis-1,2-Dichloroethene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
trans-1,2-Dichloroethene	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
2-Dichloropropane	EPA 8260B	9A20007	0.35	2.0	ND	1	01/20/09	01/20/09	
1,3-Dichloropropane	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
2,2-Dichloropropane	EPA 8260B	9A20007	0.34	2.0	ND	1	01/20/09	01/20/09	
trans-1,3-Dichloropropene	EPA 8260B	9A20007	0.22	2.0	ND	1	01/20/09	01/20/09	
trans-1,3-Dichloropropene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
1,1-Dichloropropene	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
Phylbenzene	EPA 8260B	9A20007	0.25	2.0	ND	1	01/20/09	01/20/09	
Exachlorobutadiene	EPA 8260B	9A20007	0.38	5.0	ND	1	01/20/09	01/20/09	
Isopropylbenzene	EPA 8260B	9A20007	0.25	2.0	6.4	1	01/20/09	01/20/09	
Isopropyltoluene	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
Ethylene chloride	EPA 8260B	9A20007	0.95	5.0	ND	1	01/20/09	01/20/09	
Naphthalene	EPA 8260B	9A20007	0.41	5.0	ND	1	01/20/09	01/20/09	

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B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
Sample ID: ISA1081-02 (W-15A-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A20007	0.27	2.0	10	1	01/20/09	01/20/09	
Styrene	EPA 8260B	9A20007	0.20	2.0	ND	1	01/20/09	01/20/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A20007	0.27	5.0	ND	1	01/20/09	01/20/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Tetrachloroethene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
Toluene	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
1,2,3-Trichlorobenzene	EPA 8260B	9A20007	0.30	5.0	ND	1	01/20/09	01/20/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A20007	0.48	5.0	ND	1	01/20/09	01/20/09	
1,1,1-Trichloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
1,1,2-Trichloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Trichloroethene	EPA 8260B	9A20007	0.26	2.0	ND	1	01/20/09	01/20/09	
Trichlorofluoromethane	EPA 8260B	9A20007	0.34	5.0	ND	1	01/20/09	01/20/09	
1,2,3-Trichloropropane	EPA 8260B	9A20007	0.40	10	ND	1	01/20/09	01/20/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A20007	0.23	2.0	ND	1	01/20/09	01/20/09	
1,3,5-Trimethylbenzene	EPA 8260B	9A20007	0.26	2.0	ND	1	01/20/09	01/20/09	
Vinyl chloride	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
m,p-Xylenes	EPA 8260B	9A20007	0.60	2.0	ND	1	01/20/09	01/20/09	
o-Xylene	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Xylenes, Total	EPA 8260B	9A20007	0.90	4.0	ND	1	01/20/09	01/20/09	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A20007	0.25	5.0	ND	1	01/20/09	01/20/09	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A20007	0.32	5.0	190	1	01/20/09	01/20/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A20007	0.33	5.0	ND	1	01/20/09	01/20/09	
tert-Butanol (TBA)	EPA 8260B	9A20007	6.5	50	170	1	01/20/09	01/20/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					93 %				
Surrogate: Dibromofluoromethane (80-120%)					97 %				
Surrogate: Toluene-d8 (80-120%)					95 %				

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1081-03 (W-15B-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A20007	0.28	2.0	160	1	01/20/09	01/20/09	
Bromobenzene	EPA 8260B	9A20007	0.27	5.0	ND	1	01/20/09	01/20/09	
Bromoform	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Bromochloromethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Bromodichloromethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Bromoform	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Bromomethane	EPA 8260B	9A20007	0.42	5.0	ND	1	01/20/09	01/20/09	
-Butylbenzene	EPA 8260B	9A20007	0.37	5.0	1.7	1	01/20/09	01/20/09	J
sec-Butylbenzene	EPA 8260B	9A20007	0.25	5.0	2.8	1	01/20/09	01/20/09	J
tert-Butylbenzene	EPA 8260B	9A20007	0.22	5.0	0.34	1	01/20/09	01/20/09	J
Carbon tetrachloride	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
Chlorobenzene	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
Chloroethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Chloroform	EPA 8260B	9A20007	0.33	2.0	ND	1	01/20/09	01/20/09	
Chloromethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
2-Chlorotoluene	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
-Chlorotoluene	EPA 8260B	9A20007	0.29	5.0	ND	1	01/20/09	01/20/09	
2-Dibromo-3-chloropropane	EPA 8260B	9A20007	0.97	5.0	ND	1	01/20/09	01/20/09	
Dibromochloromethane	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
2-Dibromoethane (EDB)	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
Bromomethane	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
1,2-Dichlorobenzene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
1,3-Dichlorobenzene	EPA 8260B	9A20007	0.35	2.0	ND	1	01/20/09	01/20/09	
4-Dichlorobenzene	EPA 8260B	9A20007	0.37	2.0	ND	1	01/20/09	01/20/09	
Dichlorodifluoromethane	EPA 8260B	9A20007	0.26	5.0	ND	1	01/20/09	01/20/09	
1,1-Dichloroethane	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
2-Dichloroethane	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
-Dichloroethene	EPA 8260B	9A20007	0.42	5.0	ND	1	01/20/09	01/20/09	
cis-1,2-Dichloroethene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
trans-1,2-Dichloroethene	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
2-Dichloropropane	EPA 8260B	9A20007	0.35	2.0	ND	1	01/20/09	01/20/09	
1,3-Dichloropropane	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
2,2-Dichloropropane	EPA 8260B	9A20007	0.34	2.0	ND	1	01/20/09	01/20/09	
-1,3-Dichloropropene	EPA 8260B	9A20007	0.22	2.0	ND	1	01/20/09	01/20/09	
trans-1,3-Dichloropropene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
1,1-Dichloropropene	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
Phenylbenzene	EPA 8260B	9A20007	0.25	2.0	0.57	1	01/20/09	01/20/09	J
Trichlorobutadiene	EPA 8260B	9A20007	0.38	5.0	ND	1	01/20/09	01/20/09	
Isopropylbenzene	EPA 8260B	9A20007	0.25	2.0	19	1	01/20/09	01/20/09	
Isopropyltoluene	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
Ethylene chloride	EPA 8260B	9A20007	0.95	5.0	ND	1	01/20/09	01/20/09	
Naphthalene	EPA 8260B	9A20007	0.41	5.0	ND	1	01/20/09	01/20/09	

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Project ID: Former Cenco Refinery
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Report Number: ISA1081

Sampled: 01/14/09
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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1081-03 (W-15B-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A20007	0.27	2.0	23	1	01/20/09	01/20/09	
Styrene	EPA 8260B	9A20007	0.20	2.0	ND	1	01/20/09	01/20/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A20007	0.27	5.0	ND	1	01/20/09	01/20/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Tetrachloroethene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
Toluene	EPA 8260B	9A20007	0.36	2.0	0.99	1	01/20/09	01/20/09	J
1,2,3-Trichlorobenzene	EPA 8260B	9A20007	0.30	5.0	ND	1	01/20/09	01/20/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A20007	0.48	5.0	ND	1	01/20/09	01/20/09	
1,1,1-Trichloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
1,1,2-Trichloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Trichloroethene	EPA 8260B	9A20007	0.26	2.0	ND	1	01/20/09	01/20/09	
Trichlorofluoromethane	EPA 8260B	9A20007	0.34	5.0	ND	1	01/20/09	01/20/09	
1,2,3-Trichloropropane	EPA 8260B	9A20007	0.40	10	ND	1	01/20/09	01/20/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A20007	0.23	2.0	0.37	1	01/20/09	01/20/09	J
1,3,5-Trimethylbenzene	EPA 8260B	9A20007	0.26	2.0	0.79	1	01/20/09	01/20/09	J
Vinyl chloride	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
m,p-Xylenes	EPA 8260B	9A20007	0.60	2.0	5.0	1	01/20/09	01/20/09	
o-Xylene	EPA 8260B	9A20007	0.30	2.0	0.70	1	01/20/09	01/20/09	J
Xylenes, Total	EPA 8260B	9A20007	0.90	4.0	5.7	1	01/20/09	01/20/09	
Di-isopropyl Ether (DiPE)	EPA 8260B	9A20007	0.25	5.0	ND	1	01/20/09	01/20/09	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A20007	0.32	5.0	20	1	01/20/09	01/20/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A20007	0.33	5.0	ND	1	01/20/09	01/20/09	
tert-Butanol (TBA)	EPA 8260B	9A20007	6.5	50	110	1	01/20/09	01/20/09	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							90 %		
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							97 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							94 %		

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1081-04 (TB011409 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
Bromobenzene	EPA 8260B	9A20007	0.27	5.0	ND	1	01/20/09	01/20/09	
Bromochloromethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Bromodichloromethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Bromoform	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Bromomethane	EPA 8260B	9A20007	0.42	5.0	ND	1	01/20/09	01/20/09	
1-Butylbenzene	EPA 8260B	9A20007	0.37	5.0	ND	1	01/20/09	01/20/09	
sec-Butylbenzene	EPA 8260B	9A20007	0.25	5.0	ND	1	01/20/09	01/20/09	
tert-Butylbenzene	EPA 8260B	9A20007	0.22	5.0	ND	1	01/20/09	01/20/09	
Carbon tetrachloride	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
Chlorobenzene	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
Chloroethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
Chloroform	EPA 8260B	9A20007	0.33	2.0	ND	1	01/20/09	01/20/09	
Chloromethane	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
2-Chlorotoluene	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
-Chlorotoluene	EPA 8260B	9A20007	0.29	5.0	ND	1	01/20/09	01/20/09	
1,2-Dibromo-3-chloropropane	EPA 8260B	9A20007	0.97	5.0	ND	1	01/20/09	01/20/09	
Dibromochloromethane	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
2-Dibromoethane (EDB)	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
Dibromomethane	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
1,2-Dichlorobenzene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
1,3-Dichlorobenzene	EPA 8260B	9A20007	0.35	2.0	ND	1	01/20/09	01/20/09	
4-Dichlorobenzene	EPA 8260B	9A20007	0.37	2.0	ND	1	01/20/09	01/20/09	
Dichlorodifluoromethane	EPA 8260B	9A20007	0.26	5.0	ND	1	01/20/09	01/20/09	
1,1-Dichloroethane	EPA 8260B	9A20007	0.40	2.0	ND	1	01/20/09	01/20/09	
2-Dichloroethane	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
1-Dichloroethene	EPA 8260B	9A20007	0.42	5.0	ND	1	01/20/09	01/20/09	
cis-1,2-Dichloroethene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
trans-1,2-Dichloroethene	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
2-Dichloropropene	EPA 8260B	9A20007	0.35	2.0	ND	1	01/20/09	01/20/09	
1,3-Dichloropropane	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
2,2-Dichloropropane	EPA 8260B	9A20007	0.34	2.0	ND	1	01/20/09	01/20/09	
-1,3-Dichloropropene	EPA 8260B	9A20007	0.22	2.0	ND	1	01/20/09	01/20/09	
trans-1,3-Dichloropropene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
1,1-Dichloropropene	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
Phylbenzene	EPA 8260B	9A20007	0.25	2.0	ND	1	01/20/09	01/20/09	
hexchlorobutadiene	EPA 8260B	9A20007	0.38	5.0	ND	1	01/20/09	01/20/09	
Isopropylbenzene	EPA 8260B	9A20007	0.25	2.0	ND	1	01/20/09	01/20/09	
Isopropyltoluene	EPA 8260B	9A20007	0.28	2.0	ND	1	01/20/09	01/20/09	
Ethylene chloride	EPA 8260B	9A20007	0.95	5.0	ND	1	01/20/09	01/20/09	
Naphthalene	EPA 8260B	9A20007	0.41	5.0	ND	1	01/20/09	01/20/09	

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B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1081-04 (TB011409 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A20007	0.27	2.0	ND	1	01/20/09	01/20/09	
Styrene	EPA 8260B	9A20007	0.20	2.0	ND	1	01/20/09	01/20/09	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A20007	0.27	5.0	ND	1	01/20/09	01/20/09	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Tetrachloroethene	EPA 8260B	9A20007	0.32	2.0	ND	1	01/20/09	01/20/09	
Toluene	EPA 8260B	9A20007	0.36	2.0	ND	1	01/20/09	01/20/09	
1,2,3-Trichlorobenzene	EPA 8260B	9A20007	0.30	5.0	ND	1	01/20/09	01/20/09	
1,2,4-Trichlorobenzene	EPA 8260B	9A20007	0.48	5.0	ND	1	01/20/09	01/20/09	
1,1,1-Trichloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
1,1,2-Trichloroethane	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Trichloroethene	EPA 8260B	9A20007	0.26	2.0	ND	1	01/20/09	01/20/09	
Trichlorofluoromethane	EPA 8260B	9A20007	0.34	5.0	ND	1	01/20/09	01/20/09	
1,2,3-Trichloropropane	EPA 8260B	9A20007	0.40	10	ND	1	01/20/09	01/20/09	
1,2,4-Trimethylbenzene	EPA 8260B	9A20007	0.23	2.0	ND	1	01/20/09	01/20/09	
1,3,5-Trimethylbenzene	EPA 8260B	9A20007	0.26	2.0	ND	1	01/20/09	01/20/09	
Vinyl chloride	EPA 8260B	9A20007	0.40	5.0	ND	1	01/20/09	01/20/09	
m,p-Xylenes	EPA 8260B	9A20007	0.60	2.0	ND	1	01/20/09	01/20/09	
o-Xylene	EPA 8260B	9A20007	0.30	2.0	ND	1	01/20/09	01/20/09	
Xylenes, Total	EPA 8260B	9A20007	0.90	4.0	ND	1	01/20/09	01/20/09	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A20007	0.25	5.0	ND	1	01/20/09	01/20/09	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A20007	0.28	5.0	ND	1	01/20/09	01/20/09	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A20007	0.32	5.0	ND	1	01/20/09	01/20/09	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A20007	0.33	5.0	ND	1	01/20/09	01/20/09	
tert-Butanol (TBA)	EPA 8260B	9A20007	6.5	50	ND	1	01/20/09	01/20/09	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							96 %		
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							94 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							94 %		

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1081-01 (W-14C-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A14077	0.00025	0.0020	ND	1	01/14/09	01/14/09	
Sample ID: ISA1081-02 (W-15A-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A14077	0.00025	0.0020	ND	1	01/14/09	01/14/09	
Sample ID: ISA1081-03 (W-15B-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A14077	0.00025	0.0020	ND	1	01/14/09	01/14/09	

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B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: W-14C-0109 (ISA1081-01) - Water EPA 7199	1	01/14/2009 09:50	01/14/2009 17:30	01/14/2009 19:09	01/14/2009 19:39
Sample ID: W-15A-0109 (ISA1081-02) - Water EPA 7199	1	01/14/2009 12:05	01/14/2009 17:30	01/14/2009 19:09	01/14/2009 19:49
Sample ID: W-15B-0109 (ISA1081-03) - Water EPA 7199	1	01/14/2009 15:10	01/14/2009 17:30	01/14/2009 19:09	01/14/2009 20:00

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A18006 Extracted: 01/18/09</u>											
Blank Analyzed: 01/18/2009 (9A18006-BLK1)											
Volatile Fuel Hydrocarbons (C6-C12) ND 50 25 ug/l Surrogate: 4-BFB (FID) 9.75 ug/l 10.0 97 65-140											
CS Analyzed: 01/18/2009 (9A18006-BS1)											
Volatile Fuel Hydrocarbons (C6-C12) 786 50 25 ug/l Surrogate: 4-BFB (FID) 13.9 ug/l 800 10.0 98 80-120 139 65-140											
Iatrix Spike Analyzed: 01/18/2009 (9A18006-MS1)											
Volatile Fuel Hydrocarbons (C6-C12) 252 50 25 ug/l Surrogate: 4-BFB (FID) 9.95 ug/l 220 ND 115 65-140 10.0 100 65-140											
Iatrix Spike Dup Analyzed: 01/18/2009 (9A18006-MSD1)											
Volatile Fuel Hydrocarbons (C6-C12) 305 50 25 ug/l Surrogate: 4-BFB (FID) 11.0 ug/l 220 ND 139 65-140 10.0 110 65-140 19 20											
<u>Batch: 9A20035 Extracted: 01/20/09</u>											
Blank Analyzed: 01/20/2009 (9A20035-BLK1)											
Volatile Fuel Hydrocarbons (C6-C12) ND 50 25 ug/l Surrogate: 4-BFB (FID) 10.7 ug/l 10.0 107 65-140											
LCS Analyzed: 01/20/2009 (9A20035-BS1)											
Volatile Fuel Hydrocarbons (C6-C12) 792 50 25 ug/l Surrogate: 4-BFB (FID) 15.5 ug/l 800 10.0 99 80-120 155 65-140 Z2											
Iatrix Spike Analyzed: 01/20/2009 (9A20035-MS1)											
Volatile Fuel Hydrocarbons (C6-C12) 391 50 25 ug/l Surrogate: 4-BFB (FID) 12.7 ug/l 220 157 106 65-140 10.0 127 65-140											

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B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch: 9A20035 Extracted: 01/20/09

Matrix Spike Dup Analyzed: 01/20/2009 (9A20035-MSD1)

	Source: ISA1288-03									
Volatile Fuel Hydrocarbons (C6-C12)	386	50	25	ug/l	220	157	104	65-140	1	20
Surrogate: 4-BFB (FID)	12.8			ug/l	10.0		128	65-140		

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Sampled: 01/14/09
Received: 01/14/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>											
Blank Analyzed: 01/20/2009 (9A20007-BLK1)											
Acenzone	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromoform	ND	5.0	0.40	ug/l							
Bromochloromethane	ND	2.0	0.30	ug/l							
Bromodichloromethane	ND	5.0	0.40	ug/l							
Butylbenzene	ND	5.0	0.37	ug/l							
c-Butylbenzene	ND	5.0	0.25	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.40	ug/l							
Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
2-Dibromo-3-chloropropane	ND	5.0	0.97	ug/l							
Dibromochloromethane	ND	2.0	0.40	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
chlorodifluoromethane	ND	5.0	0.26	ug/l							
-Dichloroethane	ND	2.0	0.40	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
1,1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.30	ug/l							
1,2-Dichloropropene	ND	2.0	0.35	ug/l							
1,1-Dichloropropene	ND	2.0	0.32	ug/l							
2,2-Dichloropropene	ND	2.0	0.34	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							
-Dichloropropene	ND	2.0	0.28	ug/l							

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B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9A20007 Extracted: 01/20/09											
Blank Analyzed: 01/20/2009 (9A20007-BLK1)											
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.95	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.27	ug/l							
Styrene	ND	2.0	0.20	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.30	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.30	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.40	ug/l							
m,p-Xylenes	ND	2.0	0.60	ug/l							
o-Xylene	ND	2.0	0.30	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
tert-Butanol (TBA)	ND	50	6.5	ug/l							
Surrogate: 4-Bromofluorobenzene	25.2			ug/l	25.0			101	80-120		
Surrogate: Dibromofluoromethane	23.9			ug/l	25.0			96	80-120		
Surrogate: Toluene-d8	25.3			ug/l	25.0			101	80-120		

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>											
CS Analyzed: 01/20/2009 (9A20007-BS1)											
benzene	24.2	2.0	0.28	ug/l	25.0		97	70-120			
Bromobenzene	24.6	5.0	0.27	ug/l	25.0		98	75-120			
Bromochloromethane	25.3	5.0	0.40	ug/l	25.0		101	70-130			
bromodichloromethane	24.8	2.0	0.30	ug/l	25.0		99	70-135			
bromoform	25.1	5.0	0.40	ug/l	25.0		101	55-130			
Bromomethane	22.8	5.0	0.42	ug/l	25.0		91	65-140			
-Butylbenzene	23.4	5.0	0.37	ug/l	25.0		94	70-130			
-c-Butylbenzene	25.1	5.0	0.25	ug/l	25.0		101	70-125			
tert-Butylbenzene	25.0	5.0	0.22	ug/l	25.0		100	70-125			
Carbon tetrachloride	26.6	5.0	0.28	ug/l	25.0		106	65-140			
chlorobenzene	26.4	2.0	0.36	ug/l	25.0		106	75-120			
Chloroethane	23.4	5.0	0.40	ug/l	25.0		93	60-140			
Chloroform	21.4	2.0	0.33	ug/l	25.0		86	70-130			
chloromethane	19.8	5.0	0.40	ug/l	25.0		79	50-140			
Chlorotoluene	23.7	5.0	0.28	ug/l	25.0		95	70-125			
4-Chlorotoluene	24.5	5.0	0.29	ug/l	25.0		98	75-125			
2-Dibromo-3-chloropropane	24.7	5.0	0.97	ug/l	25.0		99	50-135			
bromochloromethane	25.5	2.0	0.40	ug/l	25.0		102	70-140			
1,2-Dibromoethane (EDB)	24.4	2.0	0.40	ug/l	25.0		98	75-125			
Dibromomethane	26.7	2.0	0.36	ug/l	25.0		107	70-125			
2-Dichlorobenzene	25.2	2.0	0.32	ug/l	25.0		101	75-120			
1,3-Dichlorobenzene	24.5	2.0	0.35	ug/l	25.0		98	75-120			
1,4-Dichlorobenzene	22.5	2.0	0.37	ug/l	25.0		90	75-120			
chlorodifluoromethane	22.2	5.0	0.26	ug/l	25.0		89	35-155			
-Dichloroethane	22.8	2.0	0.40	ug/l	25.0		91	70-125			
1,2-Dichloroethane	25.7	2.0	0.28	ug/l	25.0		103	60-140			
1-Dichloroethene	18.3	5.0	0.42	ug/l	25.0		73	70-125			
-1,2-Dichloroethene	22.6	2.0	0.32	ug/l	25.0		91	70-125			
trans-1,2-Dichloroethene	20.7	2.0	0.30	ug/l	25.0		83	70-125			
1,2-Dichloropropane	23.8	2.0	0.35	ug/l	25.0		95	70-125			
1-Dichloropropane	25.3	2.0	0.32	ug/l	25.0		101	70-120			
2,2-Dichloropropane	24.6	2.0	0.34	ug/l	25.0		99	65-140			
cis-1,3-Dichloropropene	28.4	2.0	0.22	ug/l	25.0		113	75-125			
ns-1,3-Dichloropropene	23.1	2.0	0.32	ug/l	25.0		92	70-125			
-Dichloropropene	25.1	2.0	0.28	ug/l	25.0		100	75-130			

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Project ID: Former Cenco Refinery
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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC Limits	%REC	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>											
LCS Analyzed: 01/20/2009 (9A20007-BS1)											
Ethylbenzene	24.8	2.0	0.25	ug/l	25.0		99	75-125			
Hexachlorobutadiene	25.2	5.0	0.38	ug/l	25.0		101	65-135			
Isopropylbenzene	24.0	2.0	0.25	ug/l	25.0		96	75-130			
p-Isopropyltoluene	24.2	2.0	0.28	ug/l	25.0		97	75-125			
Methylene chloride	25.0	5.0	0.95	ug/l	25.0		100	55-130			
Naphthalene	24.4	5.0	0.41	ug/l	25.0		98	55-135			
n-Propylbenzene	24.1	2.0	0.27	ug/l	25.0		96	75-130			
Styrene	25.9	2.0	0.20	ug/l	25.0		104	75-130			
1,1,1,2-Tetrachloroethane	25.4	5.0	0.27	ug/l	25.0		101	70-130			
1,1,2,2-Tetrachloroethane	23.4	2.0	0.30	ug/l	25.0		94	55-130			
Tetrachloroethene	25.7	2.0	0.32	ug/l	25.0		103	70-125			
Toluene	24.3	2.0	0.36	ug/l	25.0		97	70-120			
1,2,3-Trichlorobenzene	24.8	5.0	0.30	ug/l	25.0		99	65-125			
1,2,4-Trichlorobenzene	24.8	5.0	0.48	ug/l	25.0		99	70-135			
1,1,1-Trichloroethane	25.2	2.0	0.30	ug/l	25.0		101	65-135			
1,1,2-Trichloroethane	25.0	2.0	0.30	ug/l	25.0		100	70-125			
Trichloroethene	26.0	2.0	0.26	ug/l	25.0		104	70-125			
Trichlorofluoromethane	22.9	5.0	0.34	ug/l	25.0		92	65-145			
1,2,3-Trichloropropane	23.5	10	0.40	ug/l	25.0		94	60-130			
1,2,4-Trimethylbenzene	23.6	2.0	0.23	ug/l	25.0		94	75-125			
1,3,5-Trimethylbenzene	23.2	2.0	0.26	ug/l	25.0		93	75-125			
Vinyl chloride	23.4	5.0	0.40	ug/l	25.0		94	55-135			
m,p-Xylenes	52.8	2.0	0.60	ug/l	50.0		106	75-125			
o-Xylene	26.3	2.0	0.30	ug/l	25.0		105	75-125			
Xylenes, Total	79.1	4.0	0.90	ug/l	75.0		105	70-125			
Di-isopropyl Ether (DIPE)	23.2	5.0	0.25	ug/l	25.0		93	60-135			
Ethyl tert-Butyl Ether (ETBE)	23.9	5.0	0.28	ug/l	25.0		96	65-135			
Methyl-tert-butyl Ether (MTBE)	22.8	5.0	0.32	ug/l	25.0		91	60-135			
tert-Amyl Methyl Ether (TAME)	24.4	5.0	0.33	ug/l	25.0		97	60-135			
tert-Butanol (TBA)	124	50	6.5	ug/l	125		99	70-135			
Surrogate: 4-Bromofluorobenzene	26.2			ug/l	25.0		105	80-120			
Surrogate: Dibromofluoromethane	23.8			ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	26.1			ug/l	25.0		104	80-120			

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B0054205.0001.00001

Sampled: 01/14/09
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METHOD BLANK/OC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>											
Matrix Spike Analyzed: 01/20/2009 (9A20007-MS1)						Source: ISA1081-01					
benzene	24.3	2.0	0.28	ug/l	25.0	2.54	87	65-125			
Bromobenzene	23.4	5.0	0.27	ug/l	25.0	ND	94	70-125			
Bromochloromethane	23.6	5.0	0.40	ug/l	25.0	ND	94	65-135			
Bromodichloromethane	22.3	2.0	0.30	ug/l	25.0	ND	89	70-135			
Bromoform	23.0	5.0	0.40	ug/l	25.0	ND	92	55-135			
Bromomethane	20.9	5.0	0.42	ug/l	25.0	ND	84	55-145			
-Butylbenzene	22.5	5.0	0.37	ug/l	25.0	ND	90	65-135			
-c-Butylbenzene	24.1	5.0	0.25	ug/l	25.0	1.05	92	70-125			
tert-Butylbenzene	23.0	5.0	0.22	ug/l	25.0	ND	92	65-130			
Carbon tetrachloride	23.3	5.0	0.28	ug/l	25.0	ND	93	65-140			
Chlorobenzene	24.8	2.0	0.36	ug/l	25.0	ND	99	75-125			
Chloroethane	22.1	5.0	0.40	ug/l	25.0	ND	88	55-140			
Chloroform	20.1	2.0	0.33	ug/l	25.0	ND	80	65-135			
Chloromethane	18.8	5.0	0.40	ug/l	25.0	ND	75	45-145			
Chlorotoluene	21.9	5.0	0.28	ug/l	25.0	ND	88	65-135			
4-Chlorotoluene	22.6	5.0	0.29	ug/l	25.0	ND	90	70-135			
2-Dibromo-3-chloropropane	23.3	5.0	0.97	ug/l	25.0	ND	93	45-145			
Dibromochloromethane	23.5	2.0	0.40	ug/l	25.0	ND	94	65-140			
1,2-Dibromoethane (EDB)	23.0	2.0	0.40	ug/l	25.0	ND	92	70-130			
Dibromomethane	23.9	2.0	0.36	ug/l	25.0	ND	95	65-135			
2-Dichlorobenzene	23.3	2.0	0.32	ug/l	25.0	ND	93	75-125			
1,3-Dichlorobenzene	23.4	2.0	0.35	ug/l	25.0	ND	94	75-125			
1,4-Dichlorobenzene	21.2	2.0	0.37	ug/l	25.0	ND	85	75-125			
chlorodifluoromethane	24.2	5.0	0.26	ug/l	25.0	ND	97	25-155			
1-Dichloroethane	24.0	2.0	0.40	ug/l	25.0	3.45	82	65-130			
1,2-Dichloroethane	23.0	2.0	0.28	ug/l	25.0	0.510	90	60-140			
1-Dichloroethene	32.8	5.0	0.42	ug/l	25.0	16.9	64	60-130			
-1,2-Dichloroethene	50.2	2.0	0.32	ug/l	25.0	33.6	66	65-130			
trans-1,2-Dichloroethene	26.3	2.0	0.30	ug/l	25.0	8.82	70	65-130			
1,2-Dichloropropane	22.2	2.0	0.35	ug/l	25.0	ND	89	65-130			
-Dichloropropane	23.8	2.0	0.32	ug/l	25.0	ND	95	65-135			
2,2-Dichloropropane	23.2	2.0	0.34	ug/l	25.0	ND	93	60-145			
cis-1,3-Dichloropropene	26.4	2.0	0.22	ug/l	25.0	ND	106	70-130			
trans-1,3-Dichloropropene	21.3	2.0	0.32	ug/l	25.0	ND	85	65-135			
-Dichloropropene	22.5	2.0	0.28	ug/l	25.0	ND	90	70-135			

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Project ID: Former Cenco Refinery
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Report Number: ISA1081

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9A20007 Extracted: 01/20/09											
Matrix Spike Analyzed: 01/20/2009 (9A20007-MS1)											
Source: ISA1081-01											
Ethylbenzene	23.2	2.0	0.25	ug/l	25.0	ND	93	65-130			
Hexachlorobutadiene	24.0	5.0	0.38	ug/l	25.0	ND	96	60-135			
Isopropylbenzene	23.3	2.0	0.25	ug/l	25.0	0.690	90	70-135			
p-Isopropyltoluene	22.6	2.0	0.28	ug/l	25.0	ND	90	65-130			
Methylene chloride	24.4	5.0	0.95	ug/l	25.0	ND	98	50-135			
Naphthalene	23.8	5.0	0.41	ug/l	25.0	0.530	93	50-140			
n-Propylbenzene	22.9	2.0	0.27	ug/l	25.0	ND	92	70-135			
Styrene	23.3	2.0	0.20	ug/l	25.0	ND	93	50-145			
1,1,1,2-Tetrachloroethane	22.6	5.0	0.27	ug/l	25.0	ND	91	65-140			
1,1,2,2-Tetrachloroethane	23.7	2.0	0.30	ug/l	25.0	ND	95	55-135			
Tetrachloroethene	23.4	2.0	0.32	ug/l	25.0	ND	94	65-130			
Toluene	22.3	2.0	0.36	ug/l	25.0	ND	89	70-125			
1,2,3-Trichlorobenzene	23.3	5.0	0.30	ug/l	25.0	ND	93	60-135			
1,2,4-Trichlorobenzene	24.0	5.0	0.48	ug/l	25.0	ND	96	65-135			
1,1,1-Trichloroethane	23.0	2.0	0.30	ug/l	25.0	ND	92	65-140			
1,1,2-Trichloroethane	23.6	2.0	0.30	ug/l	25.0	ND	94	65-130			
Trichloroethene	49.3	2.0	0.26	ug/l	25.0	29.9	78	65-125			
Trichlorofluoromethane	21.4	5.0	0.34	ug/l	25.0	ND	86	60-145			
1,2,3-Trichloropropane	22.3	10	0.40	ug/l	25.0	ND	89	55-135			
1,2,4-Trimethylbenzene	21.7	2.0	0.23	ug/l	25.0	ND	87	55-135			
1,3,5-Trimethylbenzene	21.3	2.0	0.26	ug/l	25.0	ND	85	70-130			
Vinyl chloride	23.6	5.0	0.40	ug/l	25.0	0.890	91	45-140			
m,p-Xylenes	49.3	2.0	0.60	ug/l	50.0	ND	99	65-130			
o-Xylene	24.4	2.0	0.30	ug/l	25.0	ND	98	65-125			
Xylenes, Total	73.7	4.0	0.90	ug/l	75.0	ND	98	60-130			
Di-isopropyl Ether (DIPE)	22.7	5.0	0.25	ug/l	25.0	0.560	89	60-140			
Ethyl tert-Butyl Ether (ETBE)	22.9	5.0	0.28	ug/l	25.0	ND	92	60-135			
Methyl-tert-butyl Ether (MTBE)	21.4	5.0	0.32	ug/l	25.0	ND	86	55-145			
tert-Amyl Methyl Ether (TAME)	23.2	5.0	0.33	ug/l	25.0	ND	93	60-140			
tert-Butanol (TBA)	139	50	6.5	ug/l	125	ND	111	65-140			
Surrogate: 4-Bromofluorobenzene	24.4			ug/l	25.0		98	80-120			
Surrogate: Dibromofluoromethane	22.8			ug/l	25.0		91	80-120			
Surrogate: Toluene-d8	23.8			ug/l	25.0		95	80-120			

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Project ID: Former Cenco Refinery
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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>											
Matrix Spike Dup Analyzed: 01/20/2009 (9A20007-MSD1)											
Source: ISA1081-01											
Benzene	24.9	2.0	0.28	ug/l	25.0	2.54	89	65-125	2	20	
Bromobenzene	23.5	5.0	0.27	ug/l	25.0	ND	94	70-125	0	20	
Bromochloromethane	24.3	5.0	0.40	ug/l	25.0	ND	97	65-135	3	25	
Bromodichloromethane	21.8	2.0	0.30	ug/l	25.0	ND	87	70-135	2	20	
Bromoform	21.7	5.0	0.40	ug/l	25.0	ND	87	55-135	6	25	
Bromomethane	21.6	5.0	0.42	ug/l	25.0	ND	86	55-145	3	25	
-Butylbenzene	22.1	5.0	0.37	ug/l	25.0	ND	88	65-135	2	20	
-c-Butylbenzene	23.7	5.0	0.25	ug/l	25.0	1.05	91	70-125	2	20	
tert-Butylbenzene	23.0	5.0	0.22	ug/l	25.0	ND	92	65-130	0	20	
Carbon tetrachloride	22.2	5.0	0.28	ug/l	25.0	ND	89	65-140	5	25	
Chlorobenzene	24.4	2.0	0.36	ug/l	25.0	ND	98	75-125	2	20	
Chloroethane	22.8	5.0	0.40	ug/l	25.0	ND	91	55-140	3	25	
Chloroform	19.6	2.0	0.33	ug/l	25.0	ND	78	65-135	2	20	
Chloromethane	19.4	5.0	0.40	ug/l	25.0	ND	78	45-145	3	25	
Chlorotoluene	21.3	5.0	0.28	ug/l	25.0	ND	85	65-135	3	20	
4-Chlorotoluene	22.2	5.0	0.29	ug/l	25.0	ND	89	70-135	2	20	
2-Dibromo-3-chloropropane	22.4	5.0	0.97	ug/l	25.0	ND	90	45-145	4	30	
Dibromochloromethane	22.6	2.0	0.40	ug/l	25.0	ND	90	65-140	4	25	
1,2-Dibromoethane (EDB)	22.7	2.0	0.40	ug/l	25.0	ND	91	70-130	1	25	
Dibromomethane	23.3	2.0	0.36	ug/l	25.0	ND	93	65-135	3	25	
2-Dichlorobenzene	23.0	2.0	0.32	ug/l	25.0	ND	92	75-125	1	20	
1,3-Dichlorobenzene	22.3	2.0	0.35	ug/l	25.0	ND	89	75-125	5	20	
1,4-Dichlorobenzene	20.9	2.0	0.37	ug/l	25.0	ND	84	75-125	1	20	
chlorodifluoromethane	22.7	5.0	0.26	ug/l	25.0	ND	91	25-155	7	30	
1-Dichloroethane	23.6	2.0	0.40	ug/l	25.0	3.45	81	65-130	2	20	
1,2-Dichloroethane	22.5	2.0	0.28	ug/l	25.0	0.510	88	60-140	2	20	
1-Dichloroethene	32.0	5.0	0.42	ug/l	25.0	16.9	60	60-130	3	20	
1,2-Dichloroethene	50.6	2.0	0.32	ug/l	25.0	33.6	68	65-130	1	20	
trans-1,2-Dichloroethene	26.8	2.0	0.30	ug/l	25.0	8.82	72	65-130	2	20	
1,2-Dichloropropane	21.7	2.0	0.35	ug/l	25.0	ND	87	65-130	2	20	
3-Dichloropropane	22.8	2.0	0.32	ug/l	25.0	ND	91	65-135	4	25	
2,2-Dichloropropane	23.3	2.0	0.34	ug/l	25.0	ND	93	60-145	1	25	
cis-1,3-Dichloropropene	26.6	2.0	0.22	ug/l	25.0	ND	106	70-130	1	20	
trans-1,3-Dichloropropene	20.5	2.0	0.32	ug/l	25.0	ND	82	65-135	4	25	
1-Dichloropropene	23.1	2.0	0.28	ug/l	25.0	ND	92	70-135	2	20	

TestAmerica Irvine

Lashmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
 801 N. Brand Blvd., Suite 1120
 Glendale, CA 91203
 Attention: Leah Levy

Project ID: Former Cenco Refinery
 B0054205.0001.00001
 Report Number: ISA1081

Sampled: 01/14/09
 Received: 01/14/09

METHOD BLANK/QC DATA**VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>											
Matrix Spike Dup Analyzed: 01/20/2009 (9A20007-MSD1)											
Source: ISA1081-01											
Ethylbenzene	22.6	2.0	0.25	ug/l	25.0	ND	90	65-130	3	20	
Hexachlorobutadiene	23.4	5.0	0.38	ug/l	25.0	ND	94	60-135	2	20	
Isopropylbenzene	23.0	2.0	0.25	ug/l	25.0	0.690	89	70-135	1	20	
p-Isopropyltoluene	21.8	2.0	0.28	ug/l	25.0	ND	87	65-130	4	20	
Methylene chloride	24.3	5.0	0.95	ug/l	25.0	ND	97	50-135	1	20	
Naphthalene	23.0	5.0	0.41	ug/l	25.0	0.530	90	50-140	4	30	
n-Propylbenzene	22.6	2.0	0.27	ug/l	25.0	ND	91	70-135	1	20	
Styrene	22.4	2.0	0.20	ug/l	25.0	ND	90	50-145	4	30	
1,1,1,2-Tetrachloroethane	22.4	5.0	0.27	ug/l	25.0	ND	90	65-140	1	20	
1,1,2,2-Tetrachloroethane	23.0	2.0	0.30	ug/l	25.0	ND	92	55-135	3	30	
Tetrachloroethene	24.0	2.0	0.32	ug/l	25.0	ND	96	65-130	2	20	
Toluene	22.1	2.0	0.36	ug/l	25.0	ND	88	70-125	1	20	
1,2,3-Trichlorobenzene	22.8	5.0	0.30	ug/l	25.0	ND	91	60-135	2	20	
1,2,4-Trichlorobenzene	24.0	5.0	0.48	ug/l	25.0	ND	96	65-135	0	20	
1,1,1-Trichloroethane	22.3	2.0	0.30	ug/l	25.0	ND	89	65-140	3	20	
1,1,2-Trichloroethane	23.4	2.0	0.30	ug/l	25.0	ND	94	65-130	1	25	
Trichloroethene	50.4	2.0	0.26	ug/l	25.0	29.9	82	65-125	2	20	
Trichlorofluoromethane	21.2	5.0	0.34	ug/l	25.0	ND	85	60-145	1	25	
1,2,3-Trichloropropane	21.3	10	0.40	ug/l	25.0	ND	85	55-135	4	30	
1,2,4-Trimethylbenzene	21.5	2.0	0.23	ug/l	25.0	ND	86	55-135	1	25	
1,3,5-Trimethylbenzene	21.6	2.0	0.26	ug/l	25.0	ND	86	70-130	2	20	
Vinyl chloride	23.4	5.0	0.40	ug/l	25.0	0.890	90	45-140	1	30	
m,p-Xylenes	48.9	2.0	0.60	ug/l	50.0	ND	98	65-130	1	25	
o-Xylene	23.9	2.0	0.30	ug/l	25.0	ND	96	65-125	2	20	
Xylenes, Total	72.8	4.0	0.90	ug/l	75.0	ND	97	60-130	1	20	
Di-isopropyl Ether (DIPE)	23.0	5.0	0.25	ug/l	25.0	0.560	90	60-140	2	25	
Ethyl tert-Butyl Ether (ETBE)	22.3	5.0	0.28	ug/l	25.0	ND	89	60-135	3	25	
Methyl-tert-butyl Ether (MTBE)	21.4	5.0	0.32	ug/l	25.0	ND	86	55-145	0	25	
tert-Amyl Methyl Ether (TAME)	22.9	5.0	0.33	ug/l	25.0	ND	92	60-140	1	30	
tert-Butanol (TBA)	132	50	6.5	ug/l	125	ND	106	65-140	5	25	
Surrogate: 4-Bromofluorobenzene	23.6			ug/l	25.0		94	80-120			
Surrogate: Dibromofluoromethane	22.3			ug/l	25.0		89	80-120			
Surrogate: Toluene-d8	23.4			ug/l	25.0		94	80-120			

TestAmerica Irvine

Sushmitha Reddy
 Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A14077 Extracted: 01/14/09</u>											
Blank Analyzed: 01/14/2009 (9A14077-BLK1)											
Chromium VI ND 0.0020 0.00025 mg/l											
LCS Analyzed: 01/14/2009 (9A14077-BS1)											
Chromium VI 0.0521 0.0020 0.00025 mg/l 0.0500 104 90-110											
Matrix Spike Analyzed: 01/14/2009 (9A14077-MS1)											
Chromium VI 0.0549 0.0020 0.00025 mg/l 0.0500 ND 110 85-115											
Matrix Spike Dup Analyzed: 01/14/2009 (9A14077-MSD1)											
Chromium VI 0.0531 0.0020 0.00025 mg/l 0.0500 ND 106 85-115 3 20											

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Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- Z2** Surrogate recovery was above the acceptance limits. Data not impacted.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

TestAmerica Irvine

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1081

Sampled: 01/14/09
Received: 01/14/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 7199	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8260B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Irvine

Lashmitha Reddy
Project Manager

CHAIN OF CUSTODY FORM

17461 Dorian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4687 FAX (909) 370-1046
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

ISA1081

 Page 1 of 1

Client Name/Address: 801 N BRAND BLVD #120 GLENDALE CAL 91203			Project/PO Number: FORMER CENCO REFINING P00054205.0001.0001			Analysis Required						
Project Manager: LEAH LEVY			Phone Number: (818)502-9470									
Sampler: JESSE ESTRADA			Fax Number: (818)502-9476									
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Special Instructions					
W-14C-0109	Aq		7	11/14/09	0950	X X X						
W-15A-0109	Aq		7	11/14/09	1205	X X X						
W-15B-0109	Aq		7	11/14/09	1510	X X X						
TB011409	Aq		3	11/14/09	—	X						
<i>Am1830</i>												
Relinquished By: <i>Jesse</i>	Date/Time: 11/14/09 / 1620		Received By: <i>John TAE</i>		Date/Time: 11/14/09 1620		Turnaround Time: (Check)					
Relinquished By: <i>John TAE</i>	Date/Time: 11/14/09 1730		Received By:		Date/Time:		same day _____ 72 hours _____ 24 hours _____ 5 days _____ 48 hours _____ normal <input checked="" type="checkbox"/>					
Relinquished By:	Date/Time:		Received in Lab By: <i>John TAE</i>		Date/Time: 11/14/09 1730		Sample Integrity: (Check) intact <input checked="" type="checkbox"/> on ice <input checked="" type="checkbox"/> 156746°C					

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project.
 Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

03d

LABORATORY REPORT

Prepared For: Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project: Former Cenco Refinery
B0052405.0001.00001

Sampled: 01/15/09
Received: 01/15/09
Revised: 02/03/09 14:50

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

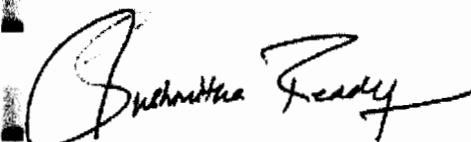
ADDITIONAL INFORMATION:

Per client's request, the report is reissued with revised sample ID for the duplicate sample.

Amended report to add J flags.

LABORATORY ID	CLIENT ID	MATRIX
ISA1288-01	W-15C-0109	Water
ISA1288-02	W-9-0109	Water
ISA1288-03	MW-105-0109	Water
ISA1288-04	MW-105-0109-D	Water
ISA1288-05	TB011509	Water

Reviewed By:



TestAmerica Irvine

Shsmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0052405.0001.00001
Report Number: ISA1288

Sampled: 01/15/09
Received: 01/15/09

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Date Qualifiers
Sample ID: ISA1288-01 (W-15C-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)									
<i>Surrogate: 4-BFB (FID) (65-140%)</i>	EPA 8015 Mod.	9A20035	50	25	29	1	1/20/2009	1/20/2009	J
<i> 94 %</i>									
Sample ID: ISA1288-02 (W-9-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)									
<i>Surrogate: 4-BFB (FID) (65-140%)</i>	EPA 8015 Mod.	9A20035	50	25	46	1	1/20/2009	1/20/2009	J
<i> 106 %</i>									
Sample ID: ISA1288-03 (MW-105-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)									
<i>Surrogate: 4-BFB (FID) (65-140%)</i>	EPA 8015 Mod.	9A20035	50	25	160	1	1/20/2009	1/20/2009	
<i> 119 %</i>									
Sample ID: ISA1288-04 (MW-105-0109-D - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)									
<i>Surrogate: 4-BFB (FID) (65-140%)</i>	EPA 8015 Mod.	9A20035	50	25	180	1	1/20/2009	1/20/2009	
<i> 131 %</i>									

TestAmerica Irvine

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Arcadis Blasland, Bouck & Lee - Glendale
 801 N. Brand Blvd., Suite 1120
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 Attention: Leah Levy

Project ID: Former Cenco Refinery
 B0052405.0001.00001
 Report Number: ISA1288

Sampled: 01/15/09
 Received: 01/15/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-01 (W-15C-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A19020	2.0	0.28	1.1	1	1/19/2009	1/19/2009	J
Bromobenzene	EPA 8260B	9A19020	5.0	0.27	ND	1	1/19/2009	1/19/2009	
Bromoform	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Bromochloromethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Bromodichloromethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
-Butylbenzene	EPA 8260B	9A19020	5.0	0.37	ND	1	1/19/2009	1/19/2009	
sec-Butylbenzene	EPA 8260B	9A19020	5.0	0.25	ND	1	1/19/2009	1/19/2009	
tert-Butylbenzene	EPA 8260B	9A19020	5.0	0.22	ND	1	1/19/2009	1/19/2009	
Carbon tetrachloride	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
Chlorobenzene	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
Chloroethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Chloroform	EPA 8260B	9A19020	2.0	0.33	ND	1	1/19/2009	1/19/2009	
Chloromethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
2-Chlorotoluene	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
4-Chlorotoluene	EPA 8260B	9A19020	5.0	0.29	ND	1	1/19/2009	1/19/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A19020	5.0	0.97	ND	1	1/19/2009	1/19/2009	
Dibromochloromethane	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	L
1,2-Dibromoethane (EDB)	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	
bromomethane	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
2-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
1,3-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.35	ND	1	1/19/2009	1/19/2009	
1,4-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.37	ND	1	1/19/2009	1/19/2009	
chlorodifluoromethane	EPA 8260B	9A19020	5.0	0.26	ND	1	1/19/2009	1/19/2009	
1,1-Dichloroethane	EPA 8260B	9A19020	2.0	0.40	1.2	1	1/19/2009	1/19/2009	J
1,2-Dichloroethane	EPA 8260B	9A19020	2.0	0.28	0.86	1	1/19/2009	1/19/2009	J
1-Dichloroethene	EPA 8260B	9A19020	5.0	0.42	0.66	1	1/19/2009	1/19/2009	J
trans-1,2-Dichloroethene	EPA 8260B	9A19020	2.0	0.32	5.7	1	1/19/2009	1/19/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
1,1-Dichloropropane	EPA 8260B	9A19020	2.0	0.35	ND	1	1/19/2009	1/19/2009	
2,2-Dichloropropane	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
cis-1,3-Dichloropropene	EPA 8260B	9A19020	2.0	0.22	ND	1	1/19/2009	1/19/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
1,1-Dichloropropene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Ethylbenzene	EPA 8260B	9A19020	2.0	0.25	ND	1	1/19/2009	1/19/2009	
Hexachlorobutadiene	EPA 8260B	9A19020	5.0	0.38	ND	1	1/19/2009	1/19/2009	
Isopropylbenzene	EPA 8260B	9A19020	2.0	0.25	ND	1	1/19/2009	1/19/2009	
p-Isopropyltoluene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Methylene chloride	EPA 8260B	9A19020	5.0	0.95	ND	1	1/19/2009	1/19/2009	
Naphthalene	EPA 8260B	9A19020	5.0	0.41	ND	1	1/19/2009	1/19/2009	

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Sashmita Reddy
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Attention: Leah Levy

Project ID: Former Cenco Refinery
B0052405.0001.00001
Report Number: ISA1288

Sampled: 01/15/09
Received: 01/15/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-01 (W-15C-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A19020	2.0	0.27	ND	1	1/19/2009	1/19/2009	
Styrene	EPA 8260B	9A19020	2.0	0.20	ND	1	1/19/2009	1/19/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A19020	5.0	0.27	ND	1	1/19/2009	1/19/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Tetrachloroethene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
Toluene	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A19020	5.0	0.30	ND	1	1/19/2009	1/19/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A19020	5.0	0.48	ND	1	1/19/2009	1/19/2009	
1,1,1-Trichloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
1,1,2-Trichloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Trichloroethene	EPA 8260B	9A19020	2.0	0.26	3.2	1	1/19/2009	1/19/2009	
Trichlorofluoromethane	EPA 8260B	9A19020	5.0	0.34	ND	1	1/19/2009	1/19/2009	
1,2,3-Trichloropropane	EPA 8260B	9A19020	10	0.40	ND	1	1/19/2009	1/19/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A19020	2.0	0.23	ND	1	1/19/2009	1/19/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A19020	2.0	0.26	ND	1	1/19/2009	1/19/2009	
Vinyl chloride	EPA 8260B	9A19020	5.0	0.40	0.90	1	1/19/2009	1/19/2009	J
m,p-Xylenes	EPA 8260B	9A19020	2.0	0.60	ND	1	1/19/2009	1/19/2009	
o-Xylene	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Xylenes, Total	EPA 8260B	9A19020	4.0	0.90	ND	1	1/19/2009	1/19/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A19020	5.0	0.25	ND	1	1/19/2009	1/19/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A19020	5.0	0.32	ND	1	1/19/2009	1/19/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A19020	5.0	0.33	ND	1	1/19/2009	1/19/2009	
tert-Butanol (TBA)	EPA 8260B	9A19020	50	6.5	27	1	1/19/2009	1/19/2009	J
Surrogate: 4-Bromofluorobenzene (80-120%)					91 %				
Surrogate: Dibromofluoromethane (80-120%)					99 %				
Surrogate: Toluene-d8 (80-120%)					98 %				

TestAmerica Irvine

Sushmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
 801 N. Brand Blvd., Suite 1120
 Glendale, CA 91203
 Attention: Leah Levy

Project ID: Former Cenco Refinery
 B0052405.0001.00001
 Report Number: ISA1288

Sampled: 01/15/09
 Received: 01/15/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-02 (W-9-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Bromobenzene	EPA 8260B	9A19020	5.0	0.27	ND	1	1/19/2009	1/19/2009	
Bromochloromethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Bromodichloromethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Bromoform	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Bromomethane	EPA 8260B	9A19020	5.0	0.42	ND	1	1/19/2009	1/19/2009	
-Butylbenzene	EPA 8260B	9A19020	5.0	0.37	ND	1	1/19/2009	1/19/2009	
sec-Butylbenzene	EPA 8260B	9A19020	5.0	0.25	ND	1	1/19/2009	1/19/2009	
tert-Butylbenzene	EPA 8260B	9A19020	5.0	0.22	ND	1	1/19/2009	1/19/2009	
Carbon tetrachloride	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
Chlorobenzene	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
Chloroethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Chloroform	EPA 8260B	9A19020	2.0	0.33	ND	1	1/19/2009	1/19/2009	
Chloromethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
2-Chlorotoluene	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
4-Chlorotoluene	EPA 8260B	9A19020	5.0	0.29	ND	1	1/19/2009	1/19/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A19020	5.0	0.97	ND	1	1/19/2009	1/19/2009	
Dibromochloromethane	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	L
1,2-Dibromoethane (EDB)	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	
1-Bromomethane	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
2-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
1,3-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.35	ND	1	1/19/2009	1/19/2009	
1,4-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.37	ND	1	1/19/2009	1/19/2009	
Chlorodifluoromethane	EPA 8260B	9A19020	5.0	0.26	ND	1	1/19/2009	1/19/2009	
1,1-Dichloroethane	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	
1,2-Dichloroethane	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
1,1-Dichloroethene	EPA 8260B	9A19020	5.0	0.42	ND	1	1/19/2009	1/19/2009	
-1,2-Dichloroethene	EPA 8260B	9A19020	2.0	0.32	3.2	1	1/19/2009	1/19/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
1-Dichloropropane	EPA 8260B	9A19020	2.0	0.35	ND	1	1/19/2009	1/19/2009	
1-Dichloropropane	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
2,2-Dichloropropane	EPA 8260B	9A19020	2.0	0.34	ND	1	1/19/2009	1/19/2009	
cis-1,3-Dichloropropene	EPA 8260B	9A19020	2.0	0.22	ND	1	1/19/2009	1/19/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
1,1-Dichloropropene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Ethylbenzene	EPA 8260B	9A19020	2.0	0.25	ND	1	1/19/2009	1/19/2009	
Methylchlorobutadiene	EPA 8260B	9A19020	5.0	0.38	ND	1	1/19/2009	1/19/2009	
Propylbenzene	EPA 8260B	9A19020	2.0	0.25	ND	1	1/19/2009	1/19/2009	
p-Isopropyltoluene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Methylene chloride	EPA 8260B	9A19020	5.0	0.95	ND	1	1/19/2009	1/19/2009	
Naphthalene	EPA 8260B	9A19020	5.0	0.41	ND	1	1/19/2009	1/19/2009	

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B0052405.0001.00001
Report Number: ISA1288

Sampled: 01/15/09
Received: 01/15/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-02 (W-9-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A19020	2.0	0.27	ND	1	1/19/2009	1/19/2009	
Styrene	EPA 8260B	9A19020	2.0	0.20	ND	1	1/19/2009	1/19/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A19020	5.0	0.27	ND	1	1/19/2009	1/19/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Tetrachloroethylene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
Toluene	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A19020	5.0	0.30	ND	1	1/19/2009	1/19/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A19020	5.0	0.48	ND	1	1/19/2009	1/19/2009	
1,1,1-Trichloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
1,1,2-Trichloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Trichloroethylene	EPA 8260B	9A19020	2.0	0.26	ND	1	1/19/2009	1/19/2009	
Trichlorofluoromethane	EPA 8260B	9A19020	5.0	0.34	ND	1	1/19/2009	1/19/2009	
1,2,3-Trichloropropane	EPA 8260B	9A19020	10	0.40	ND	1	1/19/2009	1/19/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A19020	2.0	0.23	ND	1	1/19/2009	1/19/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A19020	2.0	0.26	ND	1	1/19/2009	1/19/2009	
Vinyl chloride	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
m,p-Xylenes	EPA 8260B	9A19020	2.0	0.60	ND	1	1/19/2009	1/19/2009	
o-Xylene	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Xylenes, Total	EPA 8260B	9A19020	4.0	0.90	ND	1	1/19/2009	1/19/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A19020	5.0	0.25	ND	1	1/19/2009	1/19/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A19020	5.0	0.32	ND	1	1/19/2009	1/19/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A19020	5.0	0.33	ND	1	1/19/2009	1/19/2009	
tert-Butanol (TBA)	EPA 8260B	9A19020	50	6.5	18	1	1/19/2009	1/19/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>						91 %			
<i>Surrogate: Dibromofluoromethane (80-120%)</i>						98 %			
<i>Surrogate: Toluene-d8 (80-120%)</i>						98 %			

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 B0052405.0001.00001
 Report Number: ISA1288

Sampled: 01/15/09
 Received: 01/15/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-03 (MW-105-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A19020	2.0	0.28	0.85	1	1/19/2009	1/19/2009	J
Bromobenzene	EPA 8260B	9A19020	5.0	0.27	ND	1	1/19/2009	1/19/2009	
Bromoform	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Bromochloromethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Bromodichloromethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Bromoform	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Bromomethane	EPA 8260B	9A19020	5.0	0.42	ND	1	1/19/2009	1/19/2009	
1-Butylbenzene	EPA 8260B	9A19020	5.0	0.37	ND	1	1/19/2009	1/19/2009	
sec-Butylbenzene	EPA 8260B	9A19020	5.0	0.25	ND	1	1/19/2009	1/19/2009	
tert-Butylbenzene	EPA 8260B	9A19020	5.0	0.22	ND	1	1/19/2009	1/19/2009	
Carbon tetrachloride	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
Chlorobenzene	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
Chloroethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Chloroform	EPA 8260B	9A19020	2.0	0.33	ND	1	1/19/2009	1/19/2009	
Chloromethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
2-Chlorotoluene	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
4-Chlorotoluene	EPA 8260B	9A19020	5.0	0.29	ND	1	1/19/2009	1/19/2009	
1,2-Dibromo-3-chloropropane	EPA 8260B	9A19020	5.0	0.97	ND	1	1/19/2009	1/19/2009	
1,2-Dibromochloromethane	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	L
1,2-Dibromoethane (EDB)	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	
1,2-Dibromomethane	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
1,2-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
1,3-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.35	ND	1	1/19/2009	1/19/2009	
1,4-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.37	ND	1	1/19/2009	1/19/2009	
1,1-Dichlorodifluoromethane	EPA 8260B	9A19020	5.0	0.26	ND	1	1/19/2009	1/19/2009	
1,1-Dichloroethane	EPA 8260B	9A19020	2.0	0.40	2.6	1	1/19/2009	1/19/2009	
1,2-Dichloroethane	EPA 8260B	9A19020	2.0	0.28	1.0	1	1/19/2009	1/19/2009	J
1,1-Dichloroethene	EPA 8260B	9A19020	5.0	0.42	15	1	1/19/2009	1/19/2009	
1,1,2-Dichloroethene	EPA 8260B	9A19020	2.0	0.32	10	1	1/19/2009	1/19/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A19020	2.0	0.30	3.2	1	1/19/2009	1/19/2009	
1,2-Dichloropropane	EPA 8260B	9A19020	2.0	0.35	ND	1	1/19/2009	1/19/2009	
1,3-Dichloropropane	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
2,2-Dichloropropane	EPA 8260B	9A19020	2.0	0.34	ND	1	1/19/2009	1/19/2009	
cis-1,3-Dichloropropene	EPA 8260B	9A19020	2.0	0.22	ND	1	1/19/2009	1/19/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
1,1-Dichloropropene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Ethylbenzene	EPA 8260B	9A19020	2.0	0.25	ND	1	1/19/2009	1/19/2009	
1,1-Chlorobutadiene	EPA 8260B	9A19020	5.0	0.38	ND	1	1/19/2009	1/19/2009	
Propylbenzene	EPA 8260B	9A19020	2.0	0.25	ND	1	1/19/2009	1/19/2009	
p-Isopropyltoluene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
1,1-Chloroethylene	EPA 8260B	9A19020	5.0	0.95	ND	1	1/19/2009	1/19/2009	
Phthalene	EPA 8260B	9A19020	5.0	0.41	ND	1	1/19/2009	1/19/2009	

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 Report Number: ISA1288

Sampled: 01/15/09
 Received: 01/15/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-03 (MW-10S-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A19020	2.0	0.27	ND	1	1/19/2009	1/19/2009	
Styrene	EPA 8260B	9A19020	2.0	0.20	ND	1	1/19/2009	1/19/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A19020	5.0	0.27	ND	1	1/19/2009	1/19/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Tetrachloroethylene	EPA 8260B	9A19020	2.0	0.32	41	1	1/19/2009	1/19/2009	
Toluene	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A19020	5.0	0.30	ND	1	1/19/2009	1/19/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A19020	5.0	0.48	ND	1	1/19/2009	1/19/2009	
1,1,1-Trichloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
1,1,2-Trichloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Trichloroethylene	EPA 8260B	9A19020	2.0	0.26	84	1	1/19/2009	1/19/2009	
Trichlorofluoromethane	EPA 8260B	9A19020	5.0	0.34	ND	1	1/19/2009	1/19/2009	
1,2,3-Trichloropropane	EPA 8260B	9A19020	10	0.40	ND	1	1/19/2009	1/19/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A19020	2.0	0.23	ND	1	1/19/2009	1/19/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A19020	2.0	0.26	ND	1	1/19/2009	1/19/2009	
Vinyl chloride	EPA 8260B	9A19020	5.0	0.40	2.6	1	1/19/2009	1/19/2009	J
m,p-Xylenes	EPA 8260B	9A19020	2.0	0.60	ND	1	1/19/2009	1/19/2009	
o-Xylene	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Xylenes, Total	EPA 8260B	9A19020	4.0	0.90	ND	1	1/19/2009	1/19/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A19020	5.0	0.25	0.86	1	1/19/2009	1/19/2009	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A19020	5.0	0.32	ND	1	1/19/2009	1/19/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A19020	5.0	0.33	ND	1	1/19/2009	1/19/2009	
tert-Butanol (TBA)	EPA 8260B	9A19020	50	6.5	ND	1	1/19/2009	1/19/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					93 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					99 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					97 %				

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Project ID: Former Cenco Refinery
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Sampled: 01/15/09
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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-04 (MW-105-0109-D - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A19020	2.0	0.28	0.71	1	1/19/2009	1/19/2009	J
Bromobenzene	EPA 8260B	9A19020	5.0	0.27	ND	1	1/19/2009	1/19/2009	
Bromochloromethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Bromodichloromethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Bromoform	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Bromomethane	EPA 8260B	9A19020	5.0	0.42	ND	1	1/19/2009	1/19/2009	
-Butylbenzene	EPA 8260B	9A19020	5.0	0.37	ND	1	1/19/2009	1/19/2009	
Sec-Butylbenzene	EPA 8260B	9A19020	5.0	0.25	ND	1	1/19/2009	1/19/2009	
tert-Butylbenzene	EPA 8260B	9A19020	5.0	0.22	ND	1	1/19/2009	1/19/2009	
Carbon tetrachloride	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
Chlorobenzene	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
Chloroethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Chloroform	EPA 8260B	9A19020	2.0	0.33	ND	1	1/19/2009	1/19/2009	
Chloromethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
2-Chlorotoluene	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
4-Chlorotoluene	EPA 8260B	9A19020	5.0	0.29	ND	1	1/19/2009	1/19/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A19020	5.0	0.97	ND	1	1/19/2009	1/19/2009	
Dibromochloromethane	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	L
1,2-Dibromoethane (EDB)	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	
Dibromomethane	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
2-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
1,3-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.35	ND	1	1/19/2009	1/19/2009	
1,4-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.37	ND	1	1/19/2009	1/19/2009	
chlorodifluoromethane	EPA 8260B	9A19020	5.0	0.26	ND	1	1/19/2009	1/19/2009	
1,1-Dichloroethane	EPA 8260B	9A19020	2.0	0.40	2.5	1	1/19/2009	1/19/2009	
1,2-Dichloroethane	EPA 8260B	9A19020	2.0	0.28	0.86	1	1/19/2009	1/19/2009	J
1-Dichloroethene	EPA 8260B	9A19020	5.0	0.42	13	1	1/19/2009	1/19/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A19020	2.0	0.32	9.0	1	1/19/2009	1/19/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A19020	2.0	0.30	2.9	1	1/19/2009	1/19/2009	
1-Dichloropropane	EPA 8260B	9A19020	2.0	0.35	ND	1	1/19/2009	1/19/2009	
1-Dichloropropane	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
2,2-Dichloropropane	EPA 8260B	9A19020	2.0	0.34	ND	1	1/19/2009	1/19/2009	
cis-1,3-Dichloropropene	EPA 8260B	9A19020	2.0	0.22	ND	1	1/19/2009	1/19/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
1,1-Dichloropropene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Ethylbenzene	EPA 8260B	9A19020	2.0	0.25	ND	1	1/19/2009	1/19/2009	
hexachlorobutadiene	EPA 8260B	9A19020	5.0	0.38	ND	1	1/19/2009	1/19/2009	
propylbenzene	EPA 8260B	9A19020	2.0	0.25	ND	1	1/19/2009	1/19/2009	
p-Isopropyltoluene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Methylene chloride	EPA 8260B	9A19020	5.0	0.95	ND	1	1/19/2009	1/19/2009	
Naphthalene	EPA 8260B	9A19020	5.0	0.41	ND	1	1/19/2009	1/19/2009	

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Project ID: Former Cenco Refinery
 B0052405.0001.00001
 Report Number: ISA1288

Sampled: 01/15/09
 Received: 01/15/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-04 (MW-105-0109-D - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A19020	2.0	0.27	ND	1	1/19/2009	1/19/2009	
Styrene	EPA 8260B	9A19020	2.0	0.20	ND	1	1/19/2009	1/19/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A19020	5.0	0.27	ND	1	1/19/2009	1/19/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Tetrachloroethylene	EPA 8260B	9A19020	2.0	0.32	35	1	1/19/2009	1/19/2009	
Toluene	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A19020	5.0	0.30	ND	1	1/19/2009	1/19/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A19020	5.0	0.48	ND	1	1/19/2009	1/19/2009	
1,1,1-Trichloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
1,1,2-Trichloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Trichloroethylene	EPA 8260B	9A19020	2.0	0.26	75	1	1/19/2009	1/19/2009	
Trichlorofluoromethane	EPA 8260B	9A19020	5.0	0.34	ND	1	1/19/2009	1/19/2009	
1,2,3-Trichloropropane	EPA 8260B	9A19020	10	0.40	ND	1	1/19/2009	1/19/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A19020	2.0	0.23	ND	1	1/19/2009	1/19/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A19020	2.0	0.26	ND	1	1/19/2009	1/19/2009	
Vinyl chloride	EPA 8260B	9A19020	5.0	0.40	2.3	1	1/19/2009	1/19/2009	J
m,p-Xylenes	EPA 8260B	9A19020	2.0	0.60	ND	1	1/19/2009	1/19/2009	
o-Xylene	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Xylenes, Total	EPA 8260B	9A19020	4.0	0.90	ND	1	1/19/2009	1/19/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A19020	5.0	0.25	0.72	1	1/19/2009	1/19/2009	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A19020	5.0	0.32	ND	1	1/19/2009	1/19/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A19020	5.0	0.33	ND	1	1/19/2009	1/19/2009	
tert-Butanol (TBA)	EPA 8260B	9A19020	50	6.5	ND	1	1/19/2009	1/19/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					91 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					98 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					98 %				

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Report Number: ISA1288

Sampled: 01/15/09
Received: 01/15/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-05 (TB011509 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Bromobenzene	EPA 8260B	9A19020	5.0	0.27	ND	1	1/19/2009	1/19/2009	
Bromoform	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Bromochloromethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Bromodichloromethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Bromoform	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Bromomethane	EPA 8260B	9A19020	5.0	0.42	ND	1	1/19/2009	1/19/2009	
-Butylbenzene	EPA 8260B	9A19020	5.0	0.37	ND	1	1/19/2009	1/19/2009	
sec-Butylbenzene	EPA 8260B	9A19020	5.0	0.25	ND	1	1/19/2009	1/19/2009	
tert-Butylbenzene	EPA 8260B	9A19020	5.0	0.22	ND	1	1/19/2009	1/19/2009	
Carbon tetrachloride	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
Chlorobenzene	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
Chloroethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
Chloroform	EPA 8260B	9A19020	2.0	0.33	ND	1	1/19/2009	1/19/2009	
Chloromethane	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
2-Chlorotoluene	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
4-Chlorotoluene	EPA 8260B	9A19020	5.0	0.29	ND	1	1/19/2009	1/19/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A19020	5.0	0.97	ND	1	1/19/2009	1/19/2009	
Dibromochloromethane	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	L
1,2-Dibromoethane (EDB)	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	
ibromomethane	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
2-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
1,3-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.35	ND	1	1/19/2009	1/19/2009	
4-Dichlorobenzene	EPA 8260B	9A19020	2.0	0.37	ND	1	1/19/2009	1/19/2009	
chlorodifluoromethane	EPA 8260B	9A19020	5.0	0.26	ND	1	1/19/2009	1/19/2009	
1,1-Dichloroethane	EPA 8260B	9A19020	2.0	0.40	ND	1	1/19/2009	1/19/2009	
1,2-Dichloroethane	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
1-Dichloroethene	EPA 8260B	9A19020	5.0	0.42	ND	1	1/19/2009	1/19/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
2-Dichloropropane	EPA 8260B	9A19020	2.0	0.35	ND	1	1/19/2009	1/19/2009	
3-Dichloropropane	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
2,2-Dichloropropane	EPA 8260B	9A19020	2.0	0.34	ND	1	1/19/2009	1/19/2009	
1,3-Dichloropropene	EPA 8260B	9A19020	2.0	0.22	ND	1	1/19/2009	1/19/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
1,1-Dichloropropene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Ethylbenzene	EPA 8260B	9A19020	2.0	0.25	ND	1	1/19/2009	1/19/2009	
exachlorobutadiene	EPA 8260B	9A19020	5.0	0.38	ND	1	1/19/2009	1/19/2009	
Isopropylbenzene	EPA 8260B	9A19020	2.0	0.25	ND	1	1/19/2009	1/19/2009	
p-Isopropyltoluene	EPA 8260B	9A19020	2.0	0.28	ND	1	1/19/2009	1/19/2009	
Ethylene chloride	EPA 8260B	9A19020	5.0	0.95	ND	1	1/19/2009	1/19/2009	
Phthalene	EPA 8260B	9A19020	5.0	0.41	ND	1	1/19/2009	1/19/2009	

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B0052405.0001.00001
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Sampled: 01/15/09
Received: 01/15/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-05 (TB011509 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A19020	2.0	0.27	ND	1	1/19/2009	1/19/2009	
Styrene	EPA 8260B	9A19020	2.0	0.20	ND	1	1/19/2009	1/19/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A19020	5.0	0.27	ND	1	1/19/2009	1/19/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Tetrachloroethylene	EPA 8260B	9A19020	2.0	0.32	ND	1	1/19/2009	1/19/2009	
Toluene	EPA 8260B	9A19020	2.0	0.36	ND	1	1/19/2009	1/19/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A19020	5.0	0.30	ND	1	1/19/2009	1/19/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A19020	5.0	0.48	ND	1	1/19/2009	1/19/2009	
1,1,1-Trichloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
1,1,2-Trichloroethane	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Trichloroethylene	EPA 8260B	9A19020	2.0	0.26	ND	1	1/19/2009	1/19/2009	
Trichlorofluoromethane	EPA 8260B	9A19020	5.0	0.34	ND	1	1/19/2009	1/19/2009	
1,2,3-Trichloropropane	EPA 8260B	9A19020	10	0.40	ND	1	1/19/2009	1/19/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A19020	2.0	0.23	ND	1	1/19/2009	1/19/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A19020	2.0	0.26	ND	1	1/19/2009	1/19/2009	
Vinyl chloride	EPA 8260B	9A19020	5.0	0.40	ND	1	1/19/2009	1/19/2009	
m,p-Xylenes	EPA 8260B	9A19020	2.0	0.60	ND	1	1/19/2009	1/19/2009	
o-Xylene	EPA 8260B	9A19020	2.0	0.30	ND	1	1/19/2009	1/19/2009	
Xylenes, Total	EPA 8260B	9A19020	4.0	0.90	ND	1	1/19/2009	1/19/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A19020	5.0	0.25	ND	1	1/19/2009	1/19/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A19020	5.0	0.28	ND	1	1/19/2009	1/19/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A19020	5.0	0.32	ND	1	1/19/2009	1/19/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A19020	5.0	0.33	ND	1	1/19/2009	1/19/2009	
tert-Butanol (TBA)	EPA 8260B	9A19020	50	6.5	ND	1	1/19/2009	1/19/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					90 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					95 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					97 %				

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Sampled: 01/15/09
Received: 01/15/09

INORGANICS

Analyte	Method	Reporting Batch	Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1288-01 (W-15C-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A15127	0.0020	0.00025	ND	1	1/15/2009	1/15/2009	
Sample ID: ISA1288-02 (W-9-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A15127	0.0020	0.00025	ND	1	1/15/2009	1/15/2009	
Sample ID: ISA1288-03 (MW-105-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A15127	0.0020	0.00025	ND	1	1/15/2009	1/15/2009	
Sample ID: ISA1288-04 (MW-105-0109-D - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A15127	0.0020	0.00025	ND	1	1/15/2009	1/15/2009	M2

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Sampled: 01/15/09
Received: 01/15/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: W-15C-0109 (ISA1288-01) - Water EPA 7199	1	01/15/2009 10:55	01/15/2009 17:20	01/15/2009 20:41	01/15/2009 20:47
Sample ID: W-9-0109 (ISA1288-02) - Water EPA 7199	1	01/15/2009 14:00	01/15/2009 17:20	01/15/2009 20:41	01/15/2009 20:57
Sample ID: MW-105-0109 (ISA1288-03) - Water EPA 7199	1	01/15/2009 15:00	01/15/2009 17:20	01/15/2009 20:41	01/15/2009 21:07
Sample ID: MW-105-0109-D (ISA1288-04) - Water EPA 7199	1	01/15/2009 15:00	01/15/2009 17:20	01/15/2009 20:41	01/15/2009 21:17

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Received: 01/15/09

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20035 Extracted: 01/20/09</u>										
Blank Analyzed: 01/20/2009 (9A20035-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	ug/l							
Surrogate: 4-BFB (FID)	10.7		ug/l	10.0		107	65-140			
LCS Analyzed: 01/20/2009 (9A20035-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	792	50	ug/l	800		99	80-120			
Surrogate: 4-BFB (FID)	15.5		ug/l	10.0		155	65-140			Z2
Matrix Spike Analyzed: 01/20/2009 (9A20035-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)	391	50	ug/l	220	157	106	65-140			
Surrogate: 4-BFB (FID)	12.7		ug/l	10.0		127	65-140			
Matrix Spike Dup Analyzed: 01/20/2009 (9A20035-MSD1)										
Volatile Fuel Hydrocarbons (C6-C12)	386	50	ug/l	220	157	104	65-140	1	20	
Surrogate: 4-BFB (FID)	12.8		ug/l	10.0		128	65-140			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A19020 Extracted: 01/19/09</u>										
Blank Analyzed: 01/19/2009 (9A19020-BLK1)										
Benzene	ND	2.0	ug/l							
Bromobenzene	ND	5.0	ug/l							
Bromoform	ND	5.0	ug/l							
Bromomethane	ND	2.0	ug/l							
Carbon tetrachloride	ND	5.0	ug/l							
Chlorobenzene	ND	2.0	ug/l							
Chloroethane	ND	5.0	ug/l							
Chloroform	ND	2.0	ug/l							
Chloromethane	ND	5.0	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	ug/l							
Dibromochloromethane	ND	2.0	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	ug/l							
Dibromomethane	ND	2.0	ug/l							
1,2-Dichlorobenzene	ND	2.0	ug/l							
1,3-Dichlorobenzene	ND	2.0	ug/l							
1,4-Dichlorobenzene	ND	2.0	ug/l							
Dichlorodifluoromethane	ND	5.0	ug/l							
1,1-Dichloroethane	ND	2.0	ug/l							
1,2-Dichloroethane	ND	2.0	ug/l							
1,1-Dichloroethene	ND	5.0	ug/l							
cis-1,2-Dichloroethene	ND	2.0	ug/l							
trans-1,2-Dichloroethene	ND	2.0	ug/l							
1,2-Dichloropropane	ND	2.0	ug/l							
1,3-Dichloropropane	ND	2.0	ug/l							
2,2-Dichloropropane	ND	2.0	ug/l							
cis-1,3-Dichloropropene	ND	2.0	ug/l							
trans-1,3-Dichloropropene	ND	2.0	ug/l							
1,1-Dichloropropene	ND	2.0	ug/l							
Ethylbenzene	ND	2.0	ug/l							

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

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Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0052405.0001.00001
Report Number: ISA1288

Sampled: 01/15/09
Received: 01/15/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A19020 Extracted: 01/19/09</u>										
LCS Analyzed: 01/19/2009 (9A19020-BS1)										
<i>L</i>										
Benzene	24.3	2.0	ug/l	25.0		97	70-120			
Bromobenzene	25.8	5.0	ug/l	25.0		103	75-120			
Bromochloromethane	26.4	5.0	ug/l	25.0		105	70-130			
Bromodichloromethane	27.5	2.0	ug/l	25.0		110	70-135			
Bromoform	25.2	5.0	ug/l	25.0		101	55-130			
Bromomethane	24.3	5.0	ug/l	25.0		97	65-140			
n-Butylbenzene	25.1	5.0	ug/l	25.0		101	70-130			
sec-Butylbenzene	26.4	5.0	ug/l	25.0		105	70-125			
tert-Butylbenzene	26.2	5.0	ug/l	25.0		105	70-125			
Carbon tetrachloride	34.1	5.0	ug/l	25.0		136	65-140			
Chlorobenzene	27.2	2.0	ug/l	25.0		109	75-120			
Chloroethane	24.2	5.0	ug/l	25.0		97	60-140			
Chloroform	24.0	2.0	ug/l	25.0		96	70-130			
Chloromethane	24.9	5.0	ug/l	25.0		100	50-140			
2-Chlorotoluene	25.2	5.0	ug/l	25.0		101	70-125			
4-Chlorotoluene	25.4	5.0	ug/l	25.0		102	75-125			
1,2-Dibromo-3-chloropropane	26.8	5.0	ug/l	25.0		107	50-135			
Dibromochloromethane	35.5	2.0	ug/l	25.0		142	70-140			
1,2-Dibromoethane (EDB)	25.9	2.0	ug/l	25.0		104	75-125			
Dibromomethane	27.8	2.0	ug/l	25.0		111	70-125			
1,2-Dichlorobenzene	26.3	2.0	ug/l	25.0		105	75-120			
1,3-Dichlorobenzene	26.3	2.0	ug/l	25.0		105	75-120			
1,4-Dichlorobenzene	22.8	2.0	ug/l	25.0		91	75-120			
Dichlorodifluoromethane	27.0	5.0	ug/l	25.0		108	35-155			
1,1-Dichloroethane	25.7	2.0	ug/l	25.0		103	70-125			
1,2-Dichloroethane	27.9	2.0	ug/l	25.0		112	60-140			
1,1-Dichloroethene	19.9	5.0	ug/l	25.0		79	70-125			
cis-1,2-Dichloroethene	23.6	2.0	ug/l	25.0		95	70-125			
trans-1,2-Dichloroethene	21.2	2.0	ug/l	25.0		85	70-125			
1,2-Dichloropropane	23.6	2.0	ug/l	25.0		94	70-125			
1,3-Dichloropropane	25.9	2.0	ug/l	25.0		104	70-120			
2,2-Dichloropropane	29.4	2.0	ug/l	25.0		118	65-140			
cis-1,3-Dichloropropene	31.2	2.0	ug/l	25.0		125	75-125			
trans-1,3-Dichloropropene	25.4	2.0	ug/l	25.0		101	70-125			
1,1-Dichloropropene	26.3	2.0	ug/l	25.0		105	75-130			
Ethylbenzene	26.3	2.0	ug/l	25.0		105	75-125			

TestAmerica Irvine

Sushmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
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B0052405.0001.00001
Report Number: ISA1288

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A19020 Extracted: 01/19/09</u>										
LCS Analyzed: 01/19/2009 (9A19020-BS1)										
1,3-Dichlorobutadiene	26.6	5.0	ug/l	25.0		107	65-135			
o-propylbenzene	25.7	2.0	ug/l	25.0		103	75-130			
p-Isopropyltoluene	26.2	2.0	ug/l	25.0		105	75-125			
Methylene chloride	27.8	5.0	ug/l	25.0		111	55-130			
aphthalene	27.2	5.0	ug/l	25.0		109	55-135			
Propylbenzene	25.3	2.0	ug/l	25.0		101	75-130			
Styrene	26.2	2.0	ug/l	25.0		105	75-130			
1,1,2-Tetrachloroethane	32.6	5.0	ug/l	25.0		130	70-130			
1,2,2-Tetrachloroethane	25.6	2.0	ug/l	25.0		102	55-130			
Tetrachloroethene	28.6	2.0	ug/l	25.0		115	70-125			
Toluene	24.9	2.0	ug/l	25.0		99	70-120			
2,3-Trichlorobenzene	26.8	5.0	ug/l	25.0		107	65-125			
1,2,4-Trichlorobenzene	27.2	5.0	ug/l	25.0		109	70-135			
1,1,1-Trichloroethane	28.5	2.0	ug/l	25.0		114	65-135			
1,2-Trichloroethane	25.9	2.0	ug/l	25.0		104	70-125			
Trichloroethene	27.2	2.0	ug/l	25.0		109	70-125			
Trichlorofluoromethane	27.1	5.0	ug/l	25.0		109	65-145			
2,3-Trichloropropane	25.5	10	ug/l	25.0		102	60-130			
2,4-Trimethylbenzene	25.3	2.0	ug/l	25.0		101	75-125			
1,3,5-Trimethylbenzene	24.8	2.0	ug/l	25.0		99	75-125			
Vinyl chloride	27.7	5.0	ug/l	25.0		111	55-135			
p-Xylenes	54.8	2.0	ug/l	50.0		110	75-125			
o-Xylene	26.9	2.0	ug/l	25.0		108	75-125			
Xylenes, Total	81.7	4.0	ug/l	75.0		109	70-125			
-isopropyl Ether (DIPE)	25.3	5.0	ug/l	25.0		101	60-135			
Methyl tert-Butyl Ether (MTBE)	26.3	5.0	ug/l	25.0		105	65-135			
t-Amyl Methyl Ether (TAME)	26.8	5.0	ug/l	25.0		107	60-135			
t-Butanol (TBA)	150	50	ug/l	125		120	70-135			
Surrogate: 4-Bromofluorobenzene	24.4		ug/l	25.0		98	80-120			
Surrogate: Dibromofluoromethane	24.4		ug/l	25.0		97	80-120			
Surrogate: Toluene-d8	24.0		ug/l	25.0		96	80-120			

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Shmitha Reddy
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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A19020 Extracted: 01/19/09</u>										
Matrix Spike Analyzed: 01/19/2009 (9A19020-MS1)										
Source: ISA1288-01										
Benzene	23.5	2.0	ug/l	25.0	1.10	89	65-125			
Bromobenzene	23.7	5.0	ug/l	25.0	ND	95	70-125			
Bromochloromethane	25.6	5.0	ug/l	25.0	ND	102	65-135			
Bromodichloromethane	25.4	2.0	ug/l	25.0	ND	102	70-135			
Bromoform	23.1	5.0	ug/l	25.0	ND	92	55-135			
Bromomethane	23.0	5.0	ug/l	25.0	ND	92	55-145			
n-Butylbenzene	22.0	5.0	ug/l	25.0	ND	88	65-135			
sec-Butylbenzene	22.9	5.0	ug/l	25.0	ND	91	70-125			
tert-Butylbenzene	22.5	5.0	ug/l	25.0	ND	90	65-130			
Carbon tetrachloride	29.5	5.0	ug/l	25.0	ND	118	65-140			
Chlorobenzene	24.1	2.0	ug/l	25.0	ND	96	75-125			
Chloroethane	22.4	5.0	ug/l	25.0	ND	90	55-140			
Chloroform	22.5	2.0	ug/l	25.0	ND	90	65-135			
Chloromethane	22.4	5.0	ug/l	25.0	ND	89	45-145			
2-Chlorotoluene	22.2	5.0	ug/l	25.0	ND	89	65-135			
4-Chlorotoluene	22.6	5.0	ug/l	25.0	ND	90	70-135			
1,2-Dibromo-3-chloropropane	23.5	5.0	ug/l	25.0	ND	94	45-145			
Dibromochloromethane	32.2	2.0	ug/l	25.0	ND	129	65-140			
1,2-Dibromoethane (EDB)	24.0	2.0	ug/l	25.0	ND	96	70-130			
Dibromomethane	25.4	2.0	ug/l	25.0	ND	102	65-135			
1,2-Dichlorobenzene	24.0	2.0	ug/l	25.0	ND	96	75-125			
1,3-Dichlorobenzene	23.4	2.0	ug/l	25.0	ND	94	75-125			
1,4-Dichlorobenzene	20.8	2.0	ug/l	25.0	ND	83	75-125			
Dichlorodifluoromethane	24.1	5.0	ug/l	25.0	ND	96	25-155			
1,1-Dichloroethane	24.6	2.0	ug/l	25.0	1.24	93	65-130			
1,2-Dichloroethane	26.7	2.0	ug/l	25.0	0.860	103	60-140			
1,1-Dichloroethene	18.7	5.0	ug/l	25.0	0.660	72	60-130			
cis-1,2-Dichloroethene	27.5	2.0	ug/l	25.0	5.70	87	65-130			
trans-1,2-Dichloroethene	19.5	2.0	ug/l	25.0	ND	78	65-130			
1,2-Dichloropropane	22.7	2.0	ug/l	25.0	ND	91	65-130			
1,3-Dichloropropane	23.7	2.0	ug/l	25.0	ND	95	65-135			
2,2-Dichloropropane	25.9	2.0	ug/l	25.0	ND	104	60-145			
cis-1,3-Dichloropropene	28.6	2.0	ug/l	25.0	ND	114	70-130			
trans-1,3-Dichloropropene	23.4	2.0	ug/l	25.0	ND	94	65-135			
1,1-Dichloropropene	23.1	2.0	ug/l	25.0	ND	92	70-135			
Ethylbenzene	22.9	2.0	ug/l	25.0	ND	92	65-130			

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Sushmitha Reddy
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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A19020 Extracted: 01/19/09</u>										
Matrix Spike Analyzed: 01/19/2009 (9A19020-MS1)										
Source: ISA1288-01										
Hexachlorobutadiene	24.2	5.0	ug/l	25.0	ND	97	60-135			
Isopropylbenzene	22.0	2.0	ug/l	25.0	ND	88	70-135			
p-Isopropyltoluene	22.8	2.0	ug/l	25.0	ND	91	65-130			
Methylene chloride	23.2	5.0	ug/l	25.0	ND	93	50-135			
Phthalene	26.1	5.0	ug/l	25.0	ND	104	50-140			
m-Propylbenzene	22.3	2.0	ug/l	25.0	ND	89	70-135			
Styrene	22.8	2.0	ug/l	25.0	ND	91	50-145			
1,1,2-Tetrachloroethane	28.9	5.0	ug/l	25.0	ND	115	65-140			
1,2,2-Tetrachloroethane	23.9	2.0	ug/l	25.0	ND	96	55-135			
Tetrachloroethene	24.6	2.0	ug/l	25.0	ND	98	65-130			
Toluene	22.6	2.0	ug/l	25.0	ND	90	70-125			
2,3-Trichlorobenzene	25.1	5.0	ug/l	25.0	ND	100	60-135			
1,2,4-Trichlorobenzene	25.7	5.0	ug/l	25.0	ND	103	65-135			
1,1,1-Trichloroethane	25.7	2.0	ug/l	25.0	ND	103	65-140			
1,2-Trichloroethane	24.7	2.0	ug/l	25.0	ND	99	65-130			
Trichloroethene	27.0	2.0	ug/l	25.0	3.22	95	65-125			
Trichlorofluoromethane	23.9	5.0	ug/l	25.0	ND	95	60-145			
2,3-Trichloropropane	22.3	10	ug/l	25.0	ND	89	55-135			
2,4-Trimethylbenzene	21.8	2.0	ug/l	25.0	ND	87	55-135			
1,3,5-Trimethylbenzene	21.4	2.0	ug/l	25.0	ND	86	70-130			
Vinyl chloride	24.7	5.0	ug/l	25.0	0.900	95	45-140			
p-Xylenes	48.0	2.0	ug/l	50.0	ND	96	65-130			
o-Xylene	23.9	2.0	ug/l	25.0	ND	96	65-125			
Xylenes, Total	71.9	4.0	ug/l	75.0	ND	96	60-130			
-isopropyl Ether (DIPE)	24.6	5.0	ug/l	25.0	ND	98	60-140			
methyl tert-Butyl Ether (ETBE)	22.6	5.0	ug/l	25.0	ND	90	60-135			
Methyl-tert-butyl Ether (MTBE)	23.3	5.0	ug/l	25.0	ND	93	55-145			
t-Amyl Methyl Ether (TAME)	22.0	5.0	ug/l	25.0	ND	88	60-140			
t-Butanol (TBA)	159	50	ug/l	125	27.2	105	65-140			
Surrogate: 4-Bromofluorobenzene	24.0		ug/l	25.0		96	80-120			
Surrogate: Dibromofluoromethane	25.4		ug/l	25.0		102	80-120			
Surrogate: Toluene-d8	24.6		ug/l	25.0		98	80-120			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A19020 Extracted: 01/19/09</u>										
Matrix Spike Dup Analyzed: 01/19/2009 (9A19020-MSD1)										
Source: ISA1288-01										
Benzene	24.5	2.0	ug/l	25.0	1.10	94	65-125	4	20	
Bromobenzene	24.3	5.0	ug/l	25.0	ND	97	70-125	3	20	
Bromochloromethane	26.0	5.0	ug/l	25.0	ND	104	65-135	2	25	
Bromodichloromethane	26.6	2.0	ug/l	25.0	ND	107	70-135	5	20	
Bromoform	24.3	5.0	ug/l	25.0	ND	97	55-135	5	25	
Bromomethane	23.8	5.0	ug/l	25.0	ND	95	55-145	3	25	
n-Butylbenzene	23.4	5.0	ug/l	25.0	ND	94	65-135	6	20	
sec-Butylbenzene	24.2	5.0	ug/l	25.0	ND	97	70-125	5	20	
tert-Butylbenzene	24.0	5.0	ug/l	25.0	ND	96	65-130	6	20	
Carbon tetrachloride	30.6	5.0	ug/l	25.0	ND	122	65-140	4	25	
Chlorobenzene	25.1	2.0	ug/l	25.0	ND	100	75-125	4	20	
Chloroethane	23.2	5.0	ug/l	25.0	ND	93	55-140	4	25	
Chloroform	23.1	2.0	ug/l	25.0	ND	92	65-135	3	20	
Chloromethane	22.9	5.0	ug/l	25.0	ND	92	45-145	2	25	
2-Chlorotoluene	23.1	5.0	ug/l	25.0	ND	92	65-135	4	20	
4-Chlorotoluene	23.3	5.0	ug/l	25.0	ND	93	70-135	3	20	
1,2-Dibromo-3-chloropropane	24.9	5.0	ug/l	25.0	ND	99	45-145	6	30	
Dibromochloromethane	33.7	2.0	ug/l	25.0	ND	135	65-140	5	25	
1,2-Dibromoethane (EDB)	24.5	2.0	ug/l	25.0	ND	98	70-130	2	25	
Dibromomethane	26.8	2.0	ug/l	25.0	ND	107	65-135	5	25	
1,2-Dichlorobenzene	25.1	2.0	ug/l	25.0	ND	100	75-125	4	20	
1,3-Dichlorobenzene	24.3	2.0	ug/l	25.0	ND	97	75-125	4	20	
1,4-Dichlorobenzene	21.6	2.0	ug/l	25.0	ND	87	75-125	4	20	
Dichlorodifluoromethane	25.2	5.0	ug/l	25.0	ND	101	25-155	4	30	
1,1-Dichloroethane	25.4	2.0	ug/l	25.0	1.24	96	65-130	3	20	
1,2-Dichloroethane	27.6	2.0	ug/l	25.0	0.860	107	60-140	3	20	
1,1-Dichloroethene	19.8	5.0	ug/l	25.0	0.660	77	60-130	6	20	
cis-1,2-Dichloroethene	28.8	2.0	ug/l	25.0	5.70	92	65-130	5	20	
trans-1,2-Dichloroethene	20.5	2.0	ug/l	25.0	ND	82	65-130	5	20	
1,2-Dichloropropane	23.7	2.0	ug/l	25.0	ND	95	65-130	4	20	
1,3-Dichloropropane	24.2	2.0	ug/l	25.0	ND	97	65-135	2	25	
2,2-Dichloropropane	27.4	2.0	ug/l	25.0	ND	109	60-145	5	25	
cis-1,3-Dichloropropene	30.0	2.0	ug/l	25.0	ND	120	70-130	5	20	
trans-1,3-Dichloropropene	24.6	2.0	ug/l	25.0	ND	98	65-135	5	25	
1,1-Dichloropropene	24.0	2.0	ug/l	25.0	ND	96	70-135	4	20	
Ethylbenzene	23.8	2.0	ug/l	25.0	ND	95	65-130	4	20	

TestAmerica Irvine

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METHOD BLANK/QC DATA**VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A19020 Extracted: 01/19/09</u>										
Matrix Spike Dup Analyzed: 01/19/2009 (9A19020-MSD1)										
Source: ISA1288-01										
1,1,1-Trichloroethane	24.4	5.0	ug/l	25.0	ND	97	60-135	1	20	
1,1-Dichloroethane	23.1	2.0	ug/l	25.0	ND	92	70-135	5	20	
1,1-Dichloropropane	23.7	2.0	ug/l	25.0	ND	95	65-130	4	20	
1,1-Dimethylbenzene	24.1	5.0	ug/l	25.0	ND	96	50-135	4	20	
1,1-Diphenylethane	27.2	5.0	ug/l	25.0	ND	109	50-140	4	30	
1,1-Diphenylmethane	23.1	2.0	ug/l	25.0	ND	92	70-135	4	20	
1,1-Dimethylbenzene	23.9	2.0	ug/l	25.0	ND	95	50-145	4	30	
1,1-Dimethylchloroethane	30.6	5.0	ug/l	25.0	ND	122	65-140	6	20	
1,1-Dimethylcyclohexene	24.8	2.0	ug/l	25.0	ND	99	55-135	4	30	
1,1-Dimethylcyclopropane	25.4	2.0	ug/l	25.0	ND	102	65-130	3	20	
1,1-Dimethylbenzene	23.6	2.0	ug/l	25.0	ND	95	70-125	4	20	
1,1-Dimethylbenzylbenzene	26.0	5.0	ug/l	25.0	ND	104	60-135	4	20	
1,1-Dimethylcyclohexene	26.6	5.0	ug/l	25.0	ND	106	65-135	4	20	
1,1-Dimethylcyclohexane	26.9	2.0	ug/l	25.0	ND	107	65-140	4	20	
1,1-Dimethylcyclopentene	26.5	2.0	ug/l	25.0	ND	106	65-130	7	25	
1,1-Dimethylcyclopropane	28.3	2.0	ug/l	25.0	3.22	100	65-125	5	20	
1,1-Dimethylcyclobutene	24.9	5.0	ug/l	25.0	ND	100	60-145	4	25	
1,1-Dimethylcyclohexane	23.9	10	ug/l	25.0	ND	95	55-135	7	30	
1,1-Dimethylcyclohexene	23.0	2.0	ug/l	25.0	ND	92	55-135	6	25	
1,1-Dimethylcyclohexane	22.5	2.0	ug/l	25.0	ND	90	70-130	5	20	
1,1-Dimethylcyclohexene	25.4	5.0	ug/l	25.0	0.900	98	45-140	2	30	
1,1-Dimethylcyclohexene	49.5	2.0	ug/l	50.0	ND	99	65-130	3	25	
1,1-Dimethylcyclohexene	24.7	2.0	ug/l	25.0	ND	99	65-125	3	20	
1,1-Dimethylcyclohexene	74.2	4.0	ug/l	75.0	ND	99	60-130	3	20	
1,1-Dimethylcyclohexene	25.4	5.0	ug/l	25.0	ND	102	60-140	3	25	
1,1-Dimethylcyclohexene	24.0	5.0	ug/l	25.0	ND	96	60-135	6	25	
1,1-Dimethylcyclohexene	24.5	5.0	ug/l	25.0	ND	98	55-145	5	25	
1,1-Dimethylcyclohexene	23.7	5.0	ug/l	25.0	ND	95	60-140	7	30	
1,1-Dimethylcyclohexene	169	50	ug/l	125	27.2	113	65-140	6	25	
Surrogate: 4-Bromofluorobenzene	24.0		ug/l	25.0		96	80-120			
Surrogate: Dibromoformate	25.3		ug/l	25.0		101	80-120			
Surrogate: Toluene-d8	24.5		ug/l	25.0		98	80-120			

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Sashmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0052405.0001.00001
Report Number: ISA1288

Sampled: 01/15/09
Received: 01/15/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A15127 Extracted: 01/15/09</u>										
Blank Analyzed: 01/15/2009 (9A15127-BLK1)										
Chromium VI	ND	0.0020	mg/l							
LCS Analyzed: 01/15/2009 (9A15127-BS1)										
Chromium VI	0.0460	0.0020	mg/l	0.0500		92	90-110			
Matrix Spike Analyzed: 01/15/2009 (9A15127-MS1)										
Chromium VI	0.00151	0.0020	mg/l	0.0500	ND	3	85-115			M2, J
Matrix Spike Dup Analyzed: 01/15/2009 (9A15127-MSD1)										
Chromium VI	0.00454	0.0020	mg/l	0.0500	ND	9	85-115	100	20	M2, R-3

TestAmerica Irvine

Sushmitha Reddy
Project Manager

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Arcadis Blasland, Bouck & Lee - Glendale
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Glendale, CA 91203
Attention: Leah Levy

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B0052405.0001.00001
Report Number: ISA1288

Sampled: 01/15/09
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DATA QUALIFIERS AND DEFINITIONS

- J Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- L Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits.
Analyte not detected, data not impacted.
- M2 The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- R-3 The RPD exceeded the acceptance limit due to sample matrix effects.
- Z2 Surrogate recovery was above the acceptance limits. Data not impacted.
- ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD.
The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

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Certification Summary

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Method	Matrix	Nelac	California
EPA 7199	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8260B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

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Sushmitha Reddy
Project Manager

CHAIN OF CUSTODY FORM

ESAI288

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Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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LABORATORY REPORT

Prepared For: Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project: Former Cenco Refinery
B0054205.0001.00001

Sampled: 01/16/09
Received: 01/16/09
Issued: 01/29/09 08:35

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

ADDITIONAL INFORMATION: Amended report to add J flags

LABORATORY ID	CLIENT ID	MATRIX
ISA1435-01	W-17A-0109	Water
ISA1435-02	W-17B-0109	Water
ISA1435-03	MW-104A-0109	Water
ISA1435-04	W-17C-0109	Water
ISA1435-05	TB011609	Water

Reviewed By:



TestAmerica Irvine

Kathleen A. Robb For Sushmitha Reddy
Project Manager

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801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-01 (W-17A-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A20035	50	25	78	1	1/20/2009	1/20/2009	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1435-02 (W-17B-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A20035	50	25	38	1	1/20/2009	1/20/2009	J
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1435-03 (MW-104A-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A20035	50	25	46	1	1/20/2009	1/20/2009	J
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1435-04 (W-17C-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A20035	50	25	29	1	1/20/2009	1/20/2009	J
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									

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B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-01 (W-17A-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Bromobenzene	EPA 8260B	9A20007	5.0	0.27	ND	1	1/20/2009	1/20/2009	
Chlorochloromethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Chlorodichloromethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Bromoform	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Chloromethane	EPA 8260B	9A20007	5.0	0.42	ND	1	1/20/2009	1/20/2009	
1-Butylbenzene	EPA 8260B	9A20007	5.0	0.37	ND	1	1/20/2009	1/20/2009	
sec-Butylbenzene	EPA 8260B	9A20007	5.0	0.25	ND	1	1/20/2009	1/20/2009	
tert-Butylbenzene	EPA 8260B	9A20007	5.0	0.22	ND	1	1/20/2009	1/20/2009	
Carbon tetrachloride	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Chlorobenzene	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
Chloroethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Chloroform	EPA 8260B	9A20007	2.0	0.33	ND	1	1/20/2009	1/20/2009	
Chloromethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
2-Chlorotoluene	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Chlorotoluene	EPA 8260B	9A20007	5.0	0.29	ND	1	1/20/2009	1/20/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A20007	5.0	0.97	ND	1	1/20/2009	1/20/2009	
Dibromochloromethane	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1-Bromomethane	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
1,2-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
1,3-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.35	ND	1	1/20/2009	1/20/2009	
1,4-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.37	ND	1	1/20/2009	1/20/2009	
Chlorodifluoromethane	EPA 8260B	9A20007	5.0	0.26	ND	1	1/20/2009	1/20/2009	
1,1-Dichloroethane	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1,2-Dichloroethane	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
1-Dichloroethene	EPA 8260B	9A20007	5.0	0.42	0.46	1	1/20/2009	1/20/2009	J
cis-1,2-Dichloroethene	EPA 8260B	9A20007	2.0	0.32	1.4	1	1/20/2009	1/20/2009	J
trans-1,2-Dichloroethene	EPA 8260B	9A20007	2.0	0.30	0.39	1	1/20/2009	1/20/2009	J
1,2-Dichloropropane	EPA 8260B	9A20007	2.0	0.35	ND	1	1/20/2009	1/20/2009	
1,3-Dichloropropane	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
2,2-Dichloropropane	EPA 8260B	9A20007	2.0	0.34	ND	1	1/20/2009	1/20/2009	
1,1,3-Dichloropropene	EPA 8260B	9A20007	2.0	0.22	ND	1	1/20/2009	1/20/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
1,1-Dichloropropene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
1-Ethylbenzene	EPA 8260B	9A20007	2.0	0.25	ND	1	1/20/2009	1/20/2009	
1,3-Chlorobutadiene	EPA 8260B	9A20007	5.0	0.38	ND	1	1/20/2009	1/20/2009	
Isopropylbenzene	EPA 8260B	9A20007	2.0	0.25	ND	1	1/20/2009	1/20/2009	
p-Isopropyltoluene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Methylene chloride	EPA 8260B	9A20007	5.0	0.95	ND	1	1/20/2009	1/20/2009	
Phthalene	EPA 8260B	9A20007	5.0	0.41	0.41	1	1/20/2009	1/20/2009	J

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Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-01 (W-17A-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A20007	2.0	0.27	0.27	1	1/20/2009	1/20/2009	J
Styrene	EPA 8260B	9A20007	2.0	0.20	ND	1	1/20/2009	1/20/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A20007	5.0	0.27	ND	1	1/20/2009	1/20/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Tetrachloroethylene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
Toluene	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A20007	5.0	0.30	ND	1	1/20/2009	1/20/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A20007	5.0	0.48	ND	1	1/20/2009	1/20/2009	
1,1,1-Trichloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
1,1,2-Trichloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Trichloroethylene	EPA 8260B	9A20007	2.0	0.26	0.50	1	1/20/2009	1/20/2009	J
Trichlorofluoromethane	EPA 8260B	9A20007	5.0	0.34	ND	1	1/20/2009	1/20/2009	
1,2,3-Trichloropropane	EPA 8260B	9A20007	10	0.40	ND	1	1/20/2009	1/20/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A20007	2.0	0.23	0.33	1	1/20/2009	1/20/2009	J
1,3,5-Trimethylbenzene	EPA 8260B	9A20007	2.0	0.26	ND	1	1/20/2009	1/20/2009	
Vinyl chloride	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
m,p-Xylenes	EPA 8260B	9A20007	2.0	0.60	ND	1	1/20/2009	1/20/2009	
o-Xylene	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Xylenes, Total	EPA 8260B	9A20007	4.0	0.90	ND	1	1/20/2009	1/20/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A20007	5.0	0.25	ND	1	1/20/2009	1/20/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A20007	5.0	0.32	ND	1	1/20/2009	1/20/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A20007	5.0	0.33	ND	1	1/20/2009	1/20/2009	
tert-Butanol (TBA)	EPA 8260B	9A20007	50	6.5	54	1	1/20/2009	1/20/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
<i>Surrogate: Toluene-d8 (80-120%)</i>									
<i>90 %</i>									
<i>90 %</i>									
<i>93 %</i>									

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-02 (W-17B-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Bromobenzene	EPA 8260B	9A20007	5.0	0.27	ND	1	1/20/2009	1/20/2009	
1-Chlorobromomethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
1-Chlorodichloromethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Bromoform	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Promomethane	EPA 8260B	9A20007	5.0	0.42	ND	1	1/20/2009	1/20/2009	
1-Butylbenzene	EPA 8260B	9A20007	5.0	0.37	ND	1	1/20/2009	1/20/2009	
sec-Butylbenzene	EPA 8260B	9A20007	5.0	0.25	ND	1	1/20/2009	1/20/2009	
tert-Butylbenzene	EPA 8260B	9A20007	5.0	0.22	ND	1	1/20/2009	1/20/2009	
Carbon tetrachloride	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Chlorobenzene	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
Chloroethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Chloroform	EPA 8260B	9A20007	2.0	0.33	ND	1	1/20/2009	1/20/2009	
Chloromethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
2-Chlorotoluene	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
1-Chlorotoluene	EPA 8260B	9A20007	5.0	0.29	ND	1	1/20/2009	1/20/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A20007	5.0	0.97	ND	1	1/20/2009	1/20/2009	
Dibromochloromethane	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
Bromomethane	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
2-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
1,3-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.35	ND	1	1/20/2009	1/20/2009	
4-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.37	ND	1	1/20/2009	1/20/2009	
chlorodifluoromethane	EPA 8260B	9A20007	5.0	0.26	ND	1	1/20/2009	1/20/2009	
1,1-Dichloroethane	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1,2-Dichloroethane	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
1-Dichloroethene	EPA 8260B	9A20007	5.0	0.42	ND	1	1/20/2009	1/20/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
1,1-Dichloropropane	EPA 8260B	9A20007	2.0	0.35	ND	1	1/20/2009	1/20/2009	
1,2-Dichloropropane	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
2,2-Dichloropropane	EPA 8260B	9A20007	2.0	0.34	ND	1	1/20/2009	1/20/2009	
1,1,2,3-Dichloropropene	EPA 8260B	9A20007	2.0	0.22	ND	1	1/20/2009	1/20/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
1,1-Dichloropropene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Ethylbenzene	EPA 8260B	9A20007	2.0	0.25	ND	1	1/20/2009	1/20/2009	
trans-1,3-Dichlorobutadiene	EPA 8260B	9A20007	5.0	0.38	ND	1	1/20/2009	1/20/2009	
Isopropylbenzene	EPA 8260B	9A20007	2.0	0.25	ND	1	1/20/2009	1/20/2009	
p-Isopropyltoluene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
ethylene chloride	EPA 8260B	9A20007	5.0	0.95	ND	1	1/20/2009	1/20/2009	
Phthalene	EPA 8260B	9A20007	5.0	0.41	ND	1	1/20/2009	1/20/2009	

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Sue A. Robb For Sushmitha Reddy
Project Manager

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Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-02 (W-17B-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A20007	2.0	0.27	ND	1	1/20/2009	1/20/2009	
Styrene	EPA 8260B	9A20007	2.0	0.20	ND	1	1/20/2009	1/20/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A20007	5.0	0.27	ND	1	1/20/2009	1/20/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Tetrachloroethylene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
Toluene	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A20007	5.0	0.30	ND	1	1/20/2009	1/20/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A20007	5.0	0.48	ND	1	1/20/2009	1/20/2009	
1,1,1-Trichloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
1,1,2-Trichloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Trichloroethylene	EPA 8260B	9A20007	2.0	0.26	ND	1	1/20/2009	1/20/2009	
Trichlorofluoromethane	EPA 8260B	9A20007	5.0	0.34	ND	1	1/20/2009	1/20/2009	
1,2,3-Trichloropropane	EPA 8260B	9A20007	10	0.40	ND	1	1/20/2009	1/20/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A20007	2.0	0.23	ND	1	1/20/2009	1/20/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A20007	2.0	0.26	ND	1	1/20/2009	1/20/2009	
Vinyl chloride	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
m,p-Xylenes	EPA 8260B	9A20007	2.0	0.60	ND	1	1/20/2009	1/20/2009	
o-Xylene	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Xylenes, Total	EPA 8260B	9A20007	4.0	0.90	ND	1	1/20/2009	1/20/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A20007	5.0	0.25	ND	1	1/20/2009	1/20/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A20007	5.0	0.32	ND	1	1/20/2009	1/20/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A20007	5.0	0.33	ND	1	1/20/2009	1/20/2009	
tert-Butanol (TBA)	EPA 8260B	9A20007	50	6.5	18	1	1/20/2009	1/20/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
<i>Surrogate: Toluene-d8 (80-120%)</i>									
94 %									
96 %									
90 %									

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Kathleen A. Robb For Sushmitha Reddy
Project Manager

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 Attention: Leah Levy

Project ID: Former Cenco Refinery
 B0054205.0001.00001
 Report Number: ISA1435

Sampled: 01/16/09
 Received: 01/16/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-03 (MW-104A-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Bromobenzene	EPA 8260B	9A20007	5.0	0.27	ND	1	1/20/2009	1/20/2009	
Chlorochloromethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Chlorodichloromethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Bromoform	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Chloromethane	EPA 8260B	9A20007	5.0	0.42	ND	1	1/20/2009	1/20/2009	
1-Butylbenzene	EPA 8260B	9A20007	5.0	0.37	ND	1	1/20/2009	1/20/2009	
sec-Butylbenzene	EPA 8260B	9A20007	5.0	0.25	ND	1	1/20/2009	1/20/2009	
tert-Butylbenzene	EPA 8260B	9A20007	5.0	0.22	ND	1	1/20/2009	1/20/2009	
Carbon tetrachloride	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Chlorobenzene	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
Chloroethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Chloroform	EPA 8260B	9A20007	2.0	0.33	ND	1	1/20/2009	1/20/2009	
Chloromethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
2-Chlorotoluene	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
1-Chlorotoluene	EPA 8260B	9A20007	5.0	0.29	ND	1	1/20/2009	1/20/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A20007	5.0	0.97	ND	1	1/20/2009	1/20/2009	
Dibromochloromethane	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1-Bromomethane	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
1,2-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
1,3-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.35	ND	1	1/20/2009	1/20/2009	
1,4-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.37	ND	1	1/20/2009	1/20/2009	
1-Chlorodifluoromethane	EPA 8260B	9A20007	5.0	0.26	ND	1	1/20/2009	1/20/2009	
1,1-Dichloroethane	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1,2-Dichloroethane	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
1-Dichloroethene	EPA 8260B	9A20007	5.0	0.42	0.47	1	1/20/2009	1/20/2009	J
cis-1,2-Dichloroethene	EPA 8260B	9A20007	2.0	0.32	4.6	1	1/20/2009	1/20/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A20007	2.0	0.30	0.57	1	1/20/2009	1/20/2009	J
1,2-Dichloropropane	EPA 8260B	9A20007	2.0	0.35	ND	1	1/20/2009	1/20/2009	
1,3-Dichloropropane	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
2,2-Dichloropropane	EPA 8260B	9A20007	2.0	0.34	ND	1	1/20/2009	1/20/2009	
1,1,2,3-Tetrachloropropene	EPA 8260B	9A20007	2.0	0.22	ND	1	1/20/2009	1/20/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
1,1-Dichloropropene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Ethylbenzene	EPA 8260B	9A20007	2.0	0.25	ND	1	1/20/2009	1/20/2009	
1,3-Chlorobutadiene	EPA 8260B	9A20007	5.0	0.38	ND	1	1/20/2009	1/20/2009	
Isopropylbenzene	EPA 8260B	9A20007	2.0	0.25	ND	1	1/20/2009	1/20/2009	
p-Isopropyltoluene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
ethylene chloride	EPA 8260B	9A20007	5.0	0.95	ND	1	1/20/2009	1/20/2009	
Phthalene	EPA 8260B	9A20007	5.0	0.41	ND	1	1/20/2009	1/20/2009	

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Sue A. Robb For Sushmitha Reddy
 Project Manager

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Arcadis Blasland, Bouck & Lee - Glendale
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Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-03 (MW-104A-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A20007	2.0	0.27	ND	1	1/20/2009	1/20/2009	
Styrene	EPA 8260B	9A20007	2.0	0.20	ND	1	1/20/2009	1/20/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A20007	5.0	0.27	ND	1	1/20/2009	1/20/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Tetrachloroethene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
Toluene	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A20007	5.0	0.30	ND	1	1/20/2009	1/20/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A20007	5.0	0.48	ND	1	1/20/2009	1/20/2009	
1,1,1-Trichloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
1,1,2-Trichloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Trichloroethene	EPA 8260B	9A20007	2.0	0.26	0.39	1	1/20/2009	1/20/2009	J
Trichlorofluoromethane	EPA 8260B	9A20007	5.0	0.34	ND	1	1/20/2009	1/20/2009	
1,2,3-Trichloropropane	EPA 8260B	9A20007	10	0.40	ND	1	1/20/2009	1/20/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A20007	2.0	0.23	0.55	1	1/20/2009	1/20/2009	J
1,3,5-Trimethylbenzene	EPA 8260B	9A20007	2.0	0.26	ND	1	1/20/2009	1/20/2009	
Vinyl chloride	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
m,p-Xylenes	EPA 8260B	9A20007	2.0	0.60	1.0	1	1/20/2009	1/20/2009	J
o-Xylene	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Xylenes, Total	EPA 8260B	9A20007	4.0	0.90	1.2	1	1/20/2009	1/20/2009	J
Di-isopropyl Ether (DIPE)	EPA 8260B	9A20007	5.0	0.25	ND	1	1/20/2009	1/20/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A20007	5.0	0.32	ND	1	1/20/2009	1/20/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A20007	5.0	0.33	ND	1	1/20/2009	1/20/2009	
tert-Butanol (TBA)	EPA 8260B	9A20007	50	6.5	23	1	1/20/2009	1/20/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
98 %									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
91 %									
<i>Surrogate: Toluene-d8 (80-120%)</i>									
93 %									

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Project Manager

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Arcadis Blasland, Bouck & Lee - Glendale
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Project ID: Former Cenco Refinery
 B0054205.0001.00001
 Report Number: ISA1435

Sampled: 01/16/09
 Received: 01/16/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-04 (W-17C-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Bromobenzene	EPA 8260B	9A20007	5.0	0.27	ND	1	1/20/2009	1/20/2009	
Bromochloromethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Bromodichloromethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Bromoform	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Cromomethane	EPA 8260B	9A20007	5.0	0.42	ND	1	1/20/2009	1/20/2009	
-Butylbenzene	EPA 8260B	9A20007	5.0	0.37	ND	1	1/20/2009	1/20/2009	
sec-Butylbenzene	EPA 8260B	9A20007	5.0	0.25	ND	1	1/20/2009	1/20/2009	
tert-Butylbenzene	EPA 8260B	9A20007	5.0	0.22	ND	1	1/20/2009	1/20/2009	
Carbon tetrachloride	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Chlorobenzene	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
Chloroethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Chloroform	EPA 8260B	9A20007	2.0	0.33	ND	1	1/20/2009	1/20/2009	
Chloromethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
2-Chlorotoluene	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
1-Chlorotoluene	EPA 8260B	9A20007	5.0	0.29	ND	1	1/20/2009	1/20/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A20007	5.0	0.97	ND	1	1/20/2009	1/20/2009	
Dibromochloromethane	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
ibromomethane	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
1,2-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
1,3-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.35	ND	1	1/20/2009	1/20/2009	
4-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.37	ND	1	1/20/2009	1/20/2009	
Chlorodifluoromethane	EPA 8260B	9A20007	5.0	0.26	ND	1	1/20/2009	1/20/2009	
1,1-Dichloroethane	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
2-Dichloroethane	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
1-Dichloroethene	EPA 8260B	9A20007	5.0	0.42	ND	1	1/20/2009	1/20/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A20007	2.0	0.32	1.2	1	1/20/2009	1/20/2009	J
trans-1,2-Dichloroethene	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
2-Dichloropropane	EPA 8260B	9A20007	2.0	0.35	ND	1	1/20/2009	1/20/2009	
3-Dichloropropane	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
2,2-Dichloropropane	EPA 8260B	9A20007	2.0	0.34	ND	1	1/20/2009	1/20/2009	
1,3-Dichloropropene	EPA 8260B	9A20007	2.0	0.22	ND	1	1/20/2009	1/20/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
1,1-Dichloropropene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Ethylbenzene	EPA 8260B	9A20007	2.0	0.25	ND	1	1/20/2009	1/20/2009	
Exachlorobutadiene	EPA 8260B	9A20007	5.0	0.38	ND	1	1/20/2009	1/20/2009	
Isopropylbenzene	EPA 8260B	9A20007	2.0	0.25	ND	1	1/20/2009	1/20/2009	
p-Isopropyltoluene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Ethylene chloride	EPA 8260B	9A20007	5.0	0.95	ND	1	1/20/2009	1/20/2009	
Phthalene	EPA 8260B	9A20007	5.0	0.41	ND	1	1/20/2009	1/20/2009	

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Arcadis Blasland, Bouck & Lee - Glendale
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 Attention: Leah Levy

Project ID: Former Cenco Refinery
 B0054205.0001.00001
 Report Number: ISA1435

Sampled: 01/16/09
 Received: 01/16/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-04 (W-17C-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A20007	2.0	0.27	ND	1	1/20/2009	1/20/2009	
Styrene	EPA 8260B	9A20007	2.0	0.20	ND	1	1/20/2009	1/20/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A20007	5.0	0.27	ND	1	1/20/2009	1/20/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Tetrachloroethene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
Toluene	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A20007	5.0	0.30	ND	1	1/20/2009	1/20/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A20007	5.0	0.48	ND	1	1/20/2009	1/20/2009	
1,1,1-Trichloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
1,1,2-Trichloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Trichloroethene	EPA 8260B	9A20007	2.0	0.26	0.49	1	1/20/2009	1/20/2009	J
Trichlorofluoromethane	EPA 8260B	9A20007	5.0	0.34	ND	1	1/20/2009	1/20/2009	
1,2,3-Trichloropropane	EPA 8260B	9A20007	10	0.40	ND	1	1/20/2009	1/20/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A20007	2.0	0.23	ND	1	1/20/2009	1/20/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A20007	2.0	0.26	ND	1	1/20/2009	1/20/2009	
Vinyl chloride	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
m,p-Xylenes	EPA 8260B	9A20007	2.0	0.60	ND	1	1/20/2009	1/20/2009	
o-Xylene	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Xylenes, Total	EPA 8260B	9A20007	4.0	0.90	ND	1	1/20/2009	1/20/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A20007	5.0	0.25	ND	1	1/20/2009	1/20/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A20007	5.0	0.32	ND	1	1/20/2009	1/20/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A20007	5.0	0.33	ND	1	1/20/2009	1/20/2009	
tert-Butanol (TBA)	EPA 8260B	9A20007	50	6.5	21	1	1/20/2009	1/20/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					98 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					95 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					96 %				

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B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-05 (TB011609 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Bromobenzene	EPA 8260B	9A20007	5.0	0.27	ND	1	1/20/2009	1/20/2009	
Chloromethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Dichloromethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Bromoform	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Promomethane	EPA 8260B	9A20007	5.0	0.42	ND	1	1/20/2009	1/20/2009	
Isobutylbenzene	EPA 8260B	9A20007	5.0	0.37	ND	1	1/20/2009	1/20/2009	
sec-Butylbenzene	EPA 8260B	9A20007	5.0	0.25	ND	1	1/20/2009	1/20/2009	
tert-Butylbenzene	EPA 8260B	9A20007	5.0	0.22	ND	1	1/20/2009	1/20/2009	
Carbon tetrachloride	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Chlorobenzene	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
Chloroethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
Chloroform	EPA 8260B	9A20007	2.0	0.33	ND	1	1/20/2009	1/20/2009	
Chloromethane	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
2-Chlorotoluene	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
4-Chlorotoluene	EPA 8260B	9A20007	5.0	0.29	ND	1	1/20/2009	1/20/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A20007	5.0	0.97	ND	1	1/20/2009	1/20/2009	
Dibromochloromethane	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
Bromomethane	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
2-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
1,3-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.35	ND	1	1/20/2009	1/20/2009	
4-Dichlorobenzene	EPA 8260B	9A20007	2.0	0.37	ND	1	1/20/2009	1/20/2009	
Chlorodifluoromethane	EPA 8260B	9A20007	5.0	0.26	ND	1	1/20/2009	1/20/2009	
1,1-Dichloroethane	EPA 8260B	9A20007	2.0	0.40	ND	1	1/20/2009	1/20/2009	
1,2-Dichloroethane	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
1-Dichloroethene	EPA 8260B	9A20007	5.0	0.42	ND	1	1/20/2009	1/20/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
1,1-Dichloropropane	EPA 8260B	9A20007	2.0	0.35	ND	1	1/20/2009	1/20/2009	
1,2-Dichloropropane	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
2,2-Dichloropropane	EPA 8260B	9A20007	2.0	0.34	ND	1	1/20/2009	1/20/2009	
1,1,2,3-Dichloropropene	EPA 8260B	9A20007	2.0	0.22	ND	1	1/20/2009	1/20/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
1,1-Dichloropropene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
Ethylbenzene	EPA 8260B	9A20007	2.0	0.25	ND	1	1/20/2009	1/20/2009	
o-xachlorobutadiene	EPA 8260B	9A20007	5.0	0.38	ND	1	1/20/2009	1/20/2009	
Isopropylbenzene	EPA 8260B	9A20007	2.0	0.25	ND	1	1/20/2009	1/20/2009	
p-Isopropyltoluene	EPA 8260B	9A20007	2.0	0.28	ND	1	1/20/2009	1/20/2009	
1,1-Ethylene chloride	EPA 8260B	9A20007	5.0	0.95	ND	1	1/20/2009	1/20/2009	
Phthalene	EPA 8260B	9A20007	5.0	0.41	ND	1	1/20/2009	1/20/2009	

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Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-05 (TB011609 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A20007	2.0	0.27	ND	1	1/20/2009	1/20/2009	
Styrene	EPA 8260B	9A20007	2.0	0.20	ND	1	1/20/2009	1/20/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A20007	5.0	0.27	ND	1	1/20/2009	1/20/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Tetrachloroethylene	EPA 8260B	9A20007	2.0	0.32	ND	1	1/20/2009	1/20/2009	
Toluene	EPA 8260B	9A20007	2.0	0.36	ND	1	1/20/2009	1/20/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A20007	5.0	0.30	ND	1	1/20/2009	1/20/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A20007	5.0	0.48	ND	1	1/20/2009	1/20/2009	
1,1,1-Trichloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
1,1,2-Trichloroethane	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Trichloroethylene	EPA 8260B	9A20007	2.0	0.26	ND	1	1/20/2009	1/20/2009	
Trichlorofluoromethane	EPA 8260B	9A20007	5.0	0.34	ND	1	1/20/2009	1/20/2009	
1,2,3-Trichloropropane	EPA 8260B	9A20007	10	0.40	ND	1	1/20/2009	1/20/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A20007	2.0	0.23	ND	1	1/20/2009	1/20/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A20007	2.0	0.26	ND	1	1/20/2009	1/20/2009	
Vinyl chloride	EPA 8260B	9A20007	5.0	0.40	ND	1	1/20/2009	1/20/2009	
m,p-Xylenes	EPA 8260B	9A20007	2.0	0.60	ND	1	1/20/2009	1/20/2009	
o-Xylene	EPA 8260B	9A20007	2.0	0.30	ND	1	1/20/2009	1/20/2009	
Xylenes, Total	EPA 8260B	9A20007	4.0	0.90	ND	1	1/20/2009	1/20/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A20007	5.0	0.25	ND	1	1/20/2009	1/20/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A20007	5.0	0.28	ND	1	1/20/2009	1/20/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A20007	5.0	0.32	ND	1	1/20/2009	1/20/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A20007	5.0	0.33	ND	1	1/20/2009	1/20/2009	
tert-Butanol (TBA)	EPA 8260B	9A20007	50	6.5	ND	1	1/20/2009	1/20/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					98 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					92 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					94 %				

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Sampled: 01/16/09
Received: 01/16/09

DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Method	Reporting Batch	Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-03 (MW-104A-0109 - Water)									
Reporting Units: mg/l									
Methane	RSK-175 MOD.	9A20116	0.0010	0.00030	0.0015	1	1/20/2009	1/20/2009	

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Sampled: 01/16/09
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INORGANICS

Analyte	Method	Reporting Batch	Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1435-01 (W-17A-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A16107	0.0020	0.00025	ND	1	1/16/2009	1/16/2009	
Sample ID: ISA1435-02 (W-17B-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A16107	0.0020	0.00025	ND	1	1/16/2009	1/16/2009	
Sample ID: ISA1435-03 (MW-104A-0109 - Water)									
Reporting Units: mg/l									
Alkalinity as CaCO ₃	SM2320B	9A21046	2.0	2.0	630	1	1/21/2009	1/21/2009	
Ferrous Iron	SM 3500-Fe D	9A17055	0.10	0.10	0.10	1	1/17/2009	1/17/2009	
Chromium VI	EPA 7199	9A16107	0.0020	0.00025	ND	1	1/16/2009	1/16/2009	
Nitrate-N	EPA 300.0	9A16054	0.11	0.060	0.42	1	1/16/2009	1/16/2009	
Sulfate	EPA 300.0	9A16054	25	10	150	50	1/16/2009	1/16/2009	
Sample ID: ISA1435-04 (W-17C-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A16107	0.0020	0.00025	ND	1	1/16/2009	1/16/2009	

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Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: W-17A-0109 (ISA1435-01) - Water EPA 7199	1	01/16/2009 08:05	01/16/2009 18:00	01/16/2009 19:35	01/16/2009 19:36
Sample ID: W-17B-0109 (ISA1435-02) - Water EPA 7199	1	01/16/2009 12:10	01/16/2009 18:00	01/16/2009 19:35	01/16/2009 19:46
Sample ID: MW-104A-0109 (ISA1435-03) - Water EPA 300.0	2	01/16/2009 14:15	01/16/2009 18:00	01/16/2009 20:00	01/16/2009 22:40
EPA 7199	1	01/16/2009 14:15	01/16/2009 18:00	01/16/2009 19:35	01/16/2009 19:57
SM 3500-Fe D	1	01/16/2009 14:15	01/16/2009 18:00	01/17/2009 10:50	01/17/2009 14:00
Sample ID: W-17C-0109 (ISA1435-04) - Water EPA 7199	1	01/16/2009 16:10	01/16/2009 18:00	01/16/2009 19:35	01/16/2009 20:08

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B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD/BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20035 Extracted: 01/20/09</u>										
Blank Analyzed: 01/20/2009 (9A20035-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	ug/l							
Surrogate: 4-BFB (FID)	10.7		ug/l	10.0		107	65-140			
LCS Analyzed: 01/20/2009 (9A20035-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	792	50	ug/l	800		99	80-120			
Surrogate: 4-BFB (FID)	15.5		ug/l	10.0		155	65-140			Z2
Matrix Spike Analyzed: 01/20/2009 (9A20035-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)	391	50	ug/l	220	157	106	65-140			
Surrogate: 4-BFB (FID)	12.7		ug/l	10.0		127	65-140			
Matrix Spike Dup Analyzed: 01/20/2009 (9A20035-MSD1)										
Volatile Fuel Hydrocarbons (C6-C12)	386	50	ug/l	220	157	104	65-140	1	20	
Surrogate: 4-BFB (FID)	12.8		ug/l	10.0		128	65-140			

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METHOD/BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>										
Blank Analyzed: 01/20/2009 (9A20007-BLK1)										
benzene	ND	2.0	ug/l							
bromobenzene	ND	5.0	ug/l							
Bromochloromethane	ND	5.0	ug/l							
Promodichloromethane	ND	2.0	ug/l							
romoform	ND	5.0	ug/l							
Bromomethane	ND	5.0	ug/l							
n-Butylbenzene	ND	5.0	ug/l							
m-Butylbenzene	ND	5.0	ug/l							
t-Butylbenzene	ND	5.0	ug/l							
Carbon tetrachloride	ND	5.0	ug/l							
chlorobenzene	ND	2.0	ug/l							
chloroethane	ND	5.0	ug/l							
Chloroform	ND	2.0	ug/l							
Chloromethane	ND	5.0	ug/l							
Chlorotoluene	ND	5.0	ug/l							
4-Chlorotoluene	ND	5.0	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	ug/l							
bromochloromethane	ND	2.0	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	ug/l							
Dibromomethane	ND	2.0	ug/l							
1,1-Dichlorobenzene	ND	2.0	ug/l							
1,3-Dichlorobenzene	ND	2.0	ug/l							
1,4-Dichlorobenzene	ND	2.0	ug/l							
Dichlorodifluoromethane	ND	5.0	ug/l							
1,1-Dichloroethane	ND	2.0	ug/l							
1,2-Dichloroethane	ND	2.0	ug/l							
1,1-Dichloroethene	ND	5.0	ug/l							
1,1,2-Dichloroethene	ND	2.0	ug/l							
cis-1,2-Dichloroethene	ND	2.0	ug/l							
1,2-Dichloropropene	ND	2.0	ug/l							
1,1-Dichloropropene	ND	2.0	ug/l							
cis-1,3-Dichloropropene	ND	2.0	ug/l							
trans-1,3-Dichloropropene	ND	2.0	ug/l							
1,1-Dichloropropene	ND	2.0	ug/l							
Ethylbenzene	ND	2.0	ug/l							

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Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>										
Blank Analyzed: 01/20/2009 (9A20007-BLK1)										
Hexachlorobutadiene	ND	5.0	ug/l							
Isopropylbenzene	ND	2.0	ug/l							
p-Isopropyltoluene	ND	2.0	ug/l							
Methylene chloride	ND	5.0	ug/l							
Naphthalene	ND	5.0	ug/l							
n-Propylbenzene	ND	2.0	ug/l							
Styrene	ND	2.0	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	ug/l							
Tetrachloroethene	ND	2.0	ug/l							
Toluene	ND	2.0	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	ug/l							
1,1,1-Trichloroethane	ND	2.0	ug/l							
1,1,2-Trichloroethane	ND	2.0	ug/l							
Trichloroethene	ND	2.0	ug/l							
Trichlorofluoromethane	ND	5.0	ug/l							
1,2,3-Trichloropropane	ND	10	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	ug/l							
Vinyl chloride	ND	5.0	ug/l							
m,p-Xylenes	ND	2.0	ug/l							
o-Xylene	ND	2.0	ug/l							
Xylenes, Total	ND	4.0	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	ug/l							
tert-Butanol (TBA)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	25.2		ug/l	25.0		101	80-120			
Surrogate: Dibromofluoromethane	23.9		ug/l	25.0		96	80-120			
Surrogate: Toluene-d8	25.3		ug/l	25.0		101	80-120			

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Kathleen A. Robb For Sushmitha Reddy
Project Manager

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Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>										
LCS Analyzed: 01/20/2009 (9A20007-BS1)										
benzene	24.2	2.0	ug/l	25.0		97	70-120			
chlorobenzene	24.6	5.0	ug/l	25.0		98	75-120			
Bromoform	25.3	5.0	ug/l	25.0		101	70-130			
Bromochloromethane	24.8	2.0	ug/l	25.0		99	70-135			
Bromodichloromethane	25.1	5.0	ug/l	25.0		101	55-130			
Bromomethane	22.8	5.0	ug/l	25.0		91	65-140			
n-Butylbenzene	23.4	5.0	ug/l	25.0		94	70-130			
c-Butylbenzene	25.1	5.0	ug/l	25.0		101	70-125			
t-Butylbenzene	25.0	5.0	ug/l	25.0		100	70-125			
Carbon tetrachloride	26.6	5.0	ug/l	25.0		106	65-140			
Chlorobenzene	26.4	2.0	ug/l	25.0		106	75-120			
Chloroethane	23.4	5.0	ug/l	25.0		93	60-140			
Chloroform	21.4	2.0	ug/l	25.0		86	70-130			
Chloromethane	19.8	5.0	ug/l	25.0		79	50-140			
Chlorotoluene	23.7	5.0	ug/l	25.0		95	70-125			
1-Chlorotoluene	24.5	5.0	ug/l	25.0		98	75-125			
1,2-Dibromo-3-chloropropane	24.7	5.0	ug/l	25.0		99	50-135			
bromochloromethane	25.5	2.0	ug/l	25.0		102	70-140			
1,2-Dibromoethane (EDB)	24.4	2.0	ug/l	25.0		98	75-125			
Dibromomethane	26.7	2.0	ug/l	25.0		107	70-125			
1,2-Dichlorobenzene	25.2	2.0	ug/l	25.0		101	75-120			
1,3-Dichlorobenzene	24.5	2.0	ug/l	25.0		98	75-120			
1,4-Dichlorobenzene	22.5	2.0	ug/l	25.0		90	75-120			
Dichlorodifluoromethane	22.2	5.0	ug/l	25.0		89	35-155			
-Dichloroethane	22.8	2.0	ug/l	25.0		91	70-125			
1,1-Dichloroethane	25.7	2.0	ug/l	25.0		103	60-140			
1,1-Dichloroethene	18.3	5.0	ug/l	25.0		73	70-125			
-1,2-Dichloroethene	22.6	2.0	ug/l	25.0		91	70-125			
trans-1,2-Dichloroethene	20.7	2.0	ug/l	25.0		83	70-125			
1,2-Dichloropropane	23.8	2.0	ug/l	25.0		95	70-125			
1,1-Dichloropropane	25.3	2.0	ug/l	25.0		101	70-120			
-Dichloropropane	24.6	2.0	ug/l	25.0		99	65-140			
cis-1,3-Dichloropropene	28.4	2.0	ug/l	25.0		113	75-125			
trans-1,3-Dichloropropene	23.1	2.0	ug/l	25.0		92	70-125			
-Dichloropropene	25.1	2.0	ug/l	25.0		100	75-130			
Ethylbenzene	24.8	2.0	ug/l	25.0		99	75-125			

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Project Manager

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Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD/BLANK/QC DATA**VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>										
LCS Analyzed: 01/20/2009 (9A20007-BS1)										
Hexachlorobutadiene	25.2	5.0	ug/l	25.0		101	65-135			
Isopropylbenzene	24.0	2.0	ug/l	25.0		96	75-130			
p-Isopropyltoluene	24.2	2.0	ug/l	25.0		97	75-125			
Methylene chloride	25.0	5.0	ug/l	25.0		100	55-130			
Naphthalene	24.4	5.0	ug/l	25.0		98	55-135			
n-Propylbenzene	24.1	2.0	ug/l	25.0		96	75-130			
Styrene	25.9	2.0	ug/l	25.0		104	75-130			
1,1,1,2-Tetrachloroethane	25.4	5.0	ug/l	25.0		101	70-130			
1,1,2,2-Tetrachloroethane	23.4	2.0	ug/l	25.0		94	55-130			
Tetrachloroethene	25.7	2.0	ug/l	25.0		103	70-125			
Toluene	24.3	2.0	ug/l	25.0		97	70-120			
1,2,3-Trichlorobenzene	24.8	5.0	ug/l	25.0		99	65-125			
1,2,4-Trichlorobenzene	24.8	5.0	ug/l	25.0		99	70-135			
1,1,1-Trichloroethane	25.2	2.0	ug/l	25.0		101	65-135			
1,1,2-Trichloroethane	25.0	2.0	ug/l	25.0		100	70-125			
Trichloroethene	26.0	2.0	ug/l	25.0		104	70-125			
Trichlorofluoromethane	22.9	5.0	ug/l	25.0		92	65-145			
1,2,3-Trichloropropane	23.5	10	ug/l	25.0		94	60-130			
1,2,4-Trimethylbenzene	23.6	2.0	ug/l	25.0		94	75-125			
1,3,5-Trimethylbenzene	23.2	2.0	ug/l	25.0		93	75-125			
Vinyl chloride	23.4	5.0	ug/l	25.0		94	55-135			
m,p-Xylenes	52.8	2.0	ug/l	50.0		106	75-125			
o-Xylene	26.3	2.0	ug/l	25.0		105	75-125			
Xylenes, Total	79.1	4.0	ug/l	75.0		105	70-125			
Di-isopropyl Ether (DIPE)	23.2	5.0	ug/l	25.0		93	60-135			
Ethyl tert-Butyl Ether (ETBE)	23.9	5.0	ug/l	25.0		96	65-135			
Methyl-tert-butyl Ether (MTBE)	22.8	5.0	ug/l	25.0		91	60-135			
tert-Amyl Methyl Ether (TAME)	24.4	5.0	ug/l	25.0		97	60-135			
tert-Butanol (TBA)	124	50	ug/l	125		99	70-135			
Surrogate: 4-Bromofluorobenzene	26.2		ug/l	25.0		105	80-120			
Surrogate: Dibromofluoromethane	23.8		ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	26.1		ug/l	25.0		104	80-120			

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Kathleen A. Robb For Sushmitha Reddy
Project Manager

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801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD BLANK/GC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>										
Matrix Spike Analyzed: 01/20/2009 (9A20007-MS1)										
Source: ISA1081-01										
benzene	24.3	2.0	ug/l	25.0	2.54	87	65-125			
Chlorobenzene	23.4	5.0	ug/l	25.0	ND	94	70-125			
Bromochloromethane	23.6	5.0	ug/l	25.0	ND	94	65-135			
Bromodichloromethane	22.3	2.0	ug/l	25.0	ND	89	70-135			
Chloroform	23.0	5.0	ug/l	25.0	ND	92	55-135			
Bromomethane	20.9	5.0	ug/l	25.0	ND	84	55-145			
n-Butylbenzene	22.5	5.0	ug/l	25.0	ND	90	65-135			
c-Butylbenzene	24.1	5.0	ug/l	25.0	1.05	92	70-125			
t-Butylbenzene	23.0	5.0	ug/l	25.0	ND	92	65-130			
Carbon tetrachloride	23.3	5.0	ug/l	25.0	ND	93	65-140			
Chlorobenzene	24.8	2.0	ug/l	25.0	ND	99	75-125			
Chloroethane	22.1	5.0	ug/l	25.0	ND	88	55-140			
Chloroform	20.1	2.0	ug/l	25.0	ND	80	65-135			
Chloromethane	18.8	5.0	ug/l	25.0	ND	75	45-145			
Chlorotoluene	21.9	5.0	ug/l	25.0	ND	88	65-135			
Chlorotoluene	22.6	5.0	ug/l	25.0	ND	90	70-135			
1,2-Dibromo-3-chloropropane	23.3	5.0	ug/l	25.0	ND	93	45-145			
1,3-Dibromo-2-chloropropane	23.5	2.0	ug/l	25.0	ND	94	65-140			
1,2-Dibromoethane (EDB)	23.0	2.0	ug/l	25.0	ND	92	70-130			
Dibromomethane	23.9	2.0	ug/l	25.0	ND	95	65-135			
1,2-Dichlorobenzene	23.3	2.0	ug/l	25.0	ND	93	75-125			
1,4-Dichlorobenzene	23.4	2.0	ug/l	25.0	ND	94	75-125			
1,4-Dichlorobenzene	21.2	2.0	ug/l	25.0	ND	85	75-125			
Dichlorodifluoromethane	24.2	5.0	ug/l	25.0	ND	97	25-155			
-Dichloroethane	24.0	2.0	ug/l	25.0	3.45	82	65-130			
1,2-Dichloroethane	23.0	2.0	ug/l	25.0	0.510	90	60-140			
1,1-Dichloroethene	32.8	5.0	ug/l	25.0	16.9	64	60-130			
-1,2-Dichloroethene	50.2	2.0	ug/l	25.0	33.6	66	65-130			
trans-1,2-Dichloroethene	26.3	2.0	ug/l	25.0	8.82	70	65-130			
1,2-Dichloropropane	22.2	2.0	ug/l	25.0	ND	89	65-130			
1,3-Dichloropropane	23.8	2.0	ug/l	25.0	ND	95	65-135			
-Dichloropropane	23.2	2.0	ug/l	25.0	ND	93	60-145			
cis-1,3-Dichloropropene	26.4	2.0	ug/l	25.0	ND	106	70-130			
trans-1,3-Dichloropropene	21.3	2.0	ug/l	25.0	ND	85	65-135			
-Dichloropropene	22.5	2.0	ug/l	25.0	ND	90	70-135			
Phenylbenzene	23.2	2.0	ug/l	25.0	ND	93	65-130			

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Matthew A. Robb For Sushmitha Reddy
Project Manager

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Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD BLANK/OC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>										
Matrix Spike Analyzed: 01/20/2009 (9A20007-MS1)										
Source: ISA1081-01										
Hexachlorobutadiene	24.0	5.0	ug/l	25.0	ND	96	60-135			
Isopropylbenzene	23.3	2.0	ug/l	25.0	0.690	90	70-135			
p-Isopropyltoluene	22.6	2.0	ug/l	25.0	ND	90	65-130			
Methylene chloride	24.4	5.0	ug/l	25.0	ND	98	50-135			
Naphthalene	23.8	5.0	ug/l	25.0	0.530	93	50-140			
n-Propylbenzene	22.9	2.0	ug/l	25.0	ND	92	70-135			
Styrene	23.3	2.0	ug/l	25.0	ND	93	50-145			
1,1,1,2-Tetrachloroethane	22.6	5.0	ug/l	25.0	ND	91	65-140			
1,1,2,2-Tetrachloroethane	23.7	2.0	ug/l	25.0	ND	95	55-135			
Tetrachloroethene	23.4	2.0	ug/l	25.0	ND	94	65-130			
Toluene	22.3	2.0	ug/l	25.0	ND	89	70-125			
1,2,3-Trichlorobenzene	23.3	5.0	ug/l	25.0	ND	93	60-135			
1,2,4-Trichlorobenzene	24.0	5.0	ug/l	25.0	ND	96	65-135			
1,1,1-Trichloroethane	23.0	2.0	ug/l	25.0	ND	92	65-140			
1,1,2-Trichloroethane	23.6	2.0	ug/l	25.0	ND	94	65-130			
Trichloroethene	49.3	2.0	ug/l	25.0	29.9	78	65-125			
Trichlorofluoromethane	21.4	5.0	ug/l	25.0	ND	86	60-145			
1,2,3-Trichloropropane	22.3	10	ug/l	25.0	ND	89	55-135			
1,2,4-Trimethylbenzene	21.7	2.0	ug/l	25.0	ND	87	55-135			
1,3,5-Trimethylbenzene	21.3	2.0	ug/l	25.0	ND	85	70-130			
Vinyl chloride	23.6	5.0	ug/l	25.0	0.890	91	45-140			
m,p-Xylenes	49.3	2.0	ug/l	50.0	ND	99	65-130			
o-Xylene	24.4	2.0	ug/l	25.0	ND	98	65-125			
Xylenes, Total	73.7	4.0	ug/l	75.0	ND	98	60-130			
Di-isopropyl Ether (DIPE)	22.7	5.0	ug/l	25.0	0.560	89	60-140			
Ethyl tert-Butyl Ether (ETBE)	22.9	5.0	ug/l	25.0	ND	92	60-135			
Methyl-tert-butyl Ether (MTBE)	21.4	5.0	ug/l	25.0	ND	86	55-145			
tert-Amyl Methyl Ether (TAME)	23.2	5.0	ug/l	25.0	ND	93	60-140			
tert-Butanol (TBA)	139	50	ug/l	125	ND	111	65-140			
Surrogate: 4-Bromofluorobenzene	24.4		ug/l	25.0		98	80-120			
Surrogate: Dibromofluoromethane	22.8		ug/l	25.0		91	80-120			
Surrogate: Toluene-d8	23.8		ug/l	25.0		95	80-120			

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Kathleen A. Robb For Sushmitha Reddy
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Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>										
Matrix Spike Dup Analyzed: 01/20/2009 (9A20007-MSD1)										
Source: ISA1081-01										
benzene	24.9	2.0	ug/l	25.0	2.54	89	65-125	2	20	
Chlorobenzene	23.5	5.0	ug/l	25.0	ND	94	70-125	0	20	
Bromochloromethane	24.3	5.0	ug/l	25.0	ND	97	65-135	3	25	
Bromodichloromethane	21.8	2.0	ug/l	25.0	ND	87	70-135	2	20	
romoform	21.7	5.0	ug/l	25.0	ND	87	55-135	6	25	
Bromomethane	21.6	5.0	ug/l	25.0	ND	86	55-145	3	25	
n-Butylbenzene	22.1	5.0	ug/l	25.0	ND	88	65-135	2	20	
c-Butylbenzene	23.7	5.0	ug/l	25.0	1.05	91	70-125	2	20	
t-Butylbenzene	23.0	5.0	ug/l	25.0	ND	92	65-130	0	20	
Carbon tetrachloride	22.2	5.0	ug/l	25.0	ND	89	65-140	5	25	
Chlorobenzene	24.4	2.0	ug/l	25.0	ND	98	75-125	2	20	
Chloroethane	22.8	5.0	ug/l	25.0	ND	91	55-140	3	25	
Chloroform	19.6	2.0	ug/l	25.0	ND	78	65-135	2	20	
Chloromethane	19.4	5.0	ug/l	25.0	ND	78	45-145	3	25	
Chlorotoluene	21.3	5.0	ug/l	25.0	ND	85	65-135	3	20	
4-Chlorotoluene	22.2	5.0	ug/l	25.0	ND	89	70-135	2	20	
1,2-Dibromo-3-chloropropane	22.4	5.0	ug/l	25.0	ND	90	45-145	4	30	
bromochloromethane	22.6	2.0	ug/l	25.0	ND	90	65-140	4	25	
1,2-Dibromoethane (EDB)	22.7	2.0	ug/l	25.0	ND	91	70-130	1	25	
Dibromomethane	23.3	2.0	ug/l	25.0	ND	93	65-135	3	25	
1,1-Dichlorobenzene	23.0	2.0	ug/l	25.0	ND	92	75-125	1	20	
1,1-Dichlorobenzene	22.3	2.0	ug/l	25.0	ND	89	75-125	5	20	
1,4-Dichlorobenzene	20.9	2.0	ug/l	25.0	ND	84	75-125	1	20	
Dichlorodifluoromethane	22.7	5.0	ug/l	25.0	ND	91	25-155	7	30	
-Dichloroethane	23.6	2.0	ug/l	25.0	3.45	81	65-130	2	20	
1,2-Dichloroethane	22.5	2.0	ug/l	25.0	0.510	88	60-140	2	20	
1,1-Dichloroethene	32.0	5.0	ug/l	25.0	16.9	60	60-130	3	20	
-1,2-Dichloroethene	50.6	2.0	ug/l	25.0	33.6	68	65-130	1	20	
trans-1,2-Dichloroethene	26.8	2.0	ug/l	25.0	8.82	72	65-130	2	20	
1,2-Dichloropropane	21.7	2.0	ug/l	25.0	ND	87	65-130	2	20	
-Dichloropropane	22.8	2.0	ug/l	25.0	ND	91	65-135	4	25	
-Dichloropropane	23.3	2.0	ug/l	25.0	ND	93	60-145	1	25	
cis-1,3-Dichloropropene	26.6	2.0	ug/l	25.0	ND	106	70-130	1	20	
trans-1,3-Dichloropropene	20.5	2.0	ug/l	25.0	ND	82	65-135	4	25	
-Dichloropropene	23.1	2.0	ug/l	25.0	ND	92	70-135	2	20	
Ethylbenzene	22.6	2.0	ug/l	25.0	ND	90	65-130	3	20	

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Project Manager

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Arcadis Blasland, Bouck & Lee - Glendale
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Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD/BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20007 Extracted: 01/20/09</u>										
Matrix Spike Dup Analyzed: 01/20/2009 (9A20007-MSD1)										
Source: ISA1081-01										
Hexachlorobutadiene	23.4	5.0	ug/l	25.0	ND	94	60-135	2	20	
Isopropylbenzene	23.0	2.0	ug/l	25.0	0.690	89	70-135	1	20	
p-Isopropyltoluene	21.8	2.0	ug/l	25.0	ND	87	65-130	4	20	
Methylene chloride	24.3	5.0	ug/l	25.0	ND	97	50-135	1	20	
Naphthalene	23.0	5.0	ug/l	25.0	0.530	90	50-140	4	30	
n-Propylbenzene	22.6	2.0	ug/l	25.0	ND	91	70-135	1	20	
Styrene	22.4	2.0	ug/l	25.0	ND	90	50-145	4	30	
1,1,1,2-Tetrachloroethane	22.4	5.0	ug/l	25.0	ND	90	65-140	1	20	
1,1,2,2-Tetrachloroethane	23.0	2.0	ug/l	25.0	ND	92	55-135	3	30	
Tetrachloroethene	24.0	2.0	ug/l	25.0	ND	96	65-130	2	20	
Toluene	22.1	2.0	ug/l	25.0	ND	88	70-125	1	20	
1,2,3-Trichlorobenzene	22.8	5.0	ug/l	25.0	ND	91	60-135	2	20	
1,2,4-Trichlorobenzene	24.0	5.0	ug/l	25.0	ND	96	65-135	0	20	
1,1,1-Trichloroethane	22.3	2.0	ug/l	25.0	ND	89	65-140	3	20	
1,1,2-Trichloroethane	23.4	2.0	ug/l	25.0	ND	94	65-130	1	25	
Trichloroethene	50.4	2.0	ug/l	25.0	29.9	82	65-125	2	20	
Trichlorofluoromethane	21.2	5.0	ug/l	25.0	ND	85	60-145	1	25	
1,2,3-Trichloropropane	21.3	10	ug/l	25.0	ND	85	55-135	4	30	
1,2,4-Trimethylbenzene	21.5	2.0	ug/l	25.0	ND	86	55-135	1	25	
1,3,5-Trimethylbenzene	21.6	2.0	ug/l	25.0	ND	86	70-130	2	20	
Vinyl chloride	23.4	5.0	ug/l	25.0	0.890	90	45-140	1	30	
m,p-Xylenes	48.9	2.0	ug/l	50.0	ND	98	65-130	1	25	
o-Xylene	23.9	2.0	ug/l	25.0	ND	96	65-125	2	20	
Xylenes, Total	72.8	4.0	ug/l	75.0	ND	97	60-130	1	20	
Di-isopropyl Ether (DIPE)	23.0	5.0	ug/l	25.0	0.560	90	60-140	2	25	
Ethyl tert-Butyl Ether (ETBE)	22.3	5.0	ug/l	25.0	ND	89	60-135	3	25	
Methyl-tert-butyl Ether (MTBE)	21.4	5.0	ug/l	25.0	ND	86	55-145	0	25	
tert-Amyl Methyl Ether (TAME)	22.9	5.0	ug/l	25.0	ND	92	60-140	1	30	
tert-Butanol (TBA)	132	50	ug/l	125	ND	106	65-140	5	25	
Surrogate: 4-Bromofluorobenzene	23.6		ug/l	25.0		94	80-120			
Surrogate: Dibromofluoromethane	22.3		ug/l	25.0		89	80-120			
Surrogate: Toluene-d8	23.4		ug/l	25.0		94	80-120			

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Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD/BLANK/QUA DATA

DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20116 Extracted: 01/20/09</u>										
Blank Analyzed: 01/20/2009 (9A20116-BLK1)										
methane	ND	0.0010	mg/l							
LCS Analyzed: 01/20/2009 (9A20116-BS1)										
Methane	0.0129	0.0010	mg/l	0.0136		95	80-120			
CS Dup Analyzed: 01/20/2009 (9A20116-BSD1)										
Methane	0.0125	0.0010	mg/l	0.0136		92	80-120	3	25	

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Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD/BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A16054 Extracted: 01/16/09</u>										
Blank Analyzed: 01/16/2009 (9A16054-BLK1)										
Nitrate-N	ND	0.11	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 01/16/2009 (9A16054-BS1)										
Nitrate-N	1.15	0.11	mg/l	1.13		102	90-110			
Sulfate	9.86	0.50	mg/l	10.0		99	90-110			
Matrix Spike Analyzed: 01/16/2009 (9A16054-MS1)										
Nitrate-N	12.0	1.1	mg/l	11.3	ND	106	80-120			
Sulfate	157	5.0	mg/l	100	59.2	97	80-120			
Matrix Spike Analyzed: 01/16/2009 (9A16054-MS2)										
Nitrate-N	12.6	2.2	mg/l	11.3	ND	111	80-120			
Sulfate	185	10	mg/l	100	93.1	91	80-120			
Matrix Spike Dup Analyzed: 01/16/2009 (9A16054-MSD1)										
Nitrate-N	11.8	1.1	mg/l	11.3	ND	104	80-120	1	20	
Sulfate	157	5.0	mg/l	100	59.2	98	80-120	0	20	
Matrix Spike Dup Analyzed: 01/16/2009 (9A16054-MSD2)										
Nitrate-N	13.0	2.2	mg/l	11.3	ND	115	80-120	3	20	
Sulfate	191	10	mg/l	100	93.1	98	80-120	3	20	
<u>Batch: 9A16107 Extracted: 01/16/09</u>										
Blank Analyzed: 01/16/2009 (9A16107-BLK1)										
Chromium VI	ND	0.0020	mg/l							

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B0054205.0001.00001
Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A16107 Extracted: 01/16/09</u>										
LCS Analyzed: 01/16/2009 (9A16107-BS1)										
Chromium VI	0.0482	0.0020	mg/l	0.0500		96	90-110			
Matrix Spike Analyzed: 01/16/2009 (9A16107-MS1)										
Chromium VI	0.0563	0.0020	mg/l	0.0500	0.00524	102	85-115			
Matrix Spike Dup Analyzed: 01/16/2009 (9A16107-MSD1)										
Chromium VI	0.0569	0.0020	mg/l	0.0500	0.00524	103	85-115	1	20	
<u>Batch: 9A17055 Extracted: 01/17/09</u>										
Blank Analyzed: 01/17/2009 (9A17055-BLK1)										
Ferrous Iron	ND	0.10	mg/l							
LCS Analyzed: 01/17/2009 (9A17055-BS1)										
Ferrous Iron	5.00	0.10	mg/l	5.00		100	80-120			
Duplicate Analyzed: 01/17/2009 (9A17055-DUP1)										
Ferrous Iron	0.100	0.10	mg/l		0.100			0	20	
<u>Batch: 9A21046 Extracted: 01/21/09</u>										
Blank Analyzed: 01/21/2009 (9A21046-BLK1)										
Alkalinity as CaCO ₃	ND	2.0	mg/l							
Duplicate Analyzed: 01/21/2009 (9A21046-DUP1)										
Alkalinity as CaCO ₃	64.0	2.0	mg/l		66.0			3	20	

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Attention: Leah Levy

Project ID: Former Cenco Refinery
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Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A21046 Extracted: 01/21/09</u>										
Reference Analyzed: 01/21/2009 (9A21046-SRM1)										
Alkalinity as CaCO ₃	220	2.0	mg/l	223		99	90-110			

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Report Number: ISA1435

Sampled: 01/16/09
Received: 01/16/09

DATA QUALIFIERS AND DEFINITIONS

- J Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- Z2 Surrogate recovery was above the acceptance limits. Data not impacted.
- ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

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Sampled: 01/16/09
Received: 01/16/09

Certification Summary

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Method	Matrix	Nelac	California
EPA 300.0	Water	X	X
EPA 7199	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8260B	Water	X	X
RSK-175 MOD.	Water	N/A	N/A
SM 3500-Fe D	Water		
SM2320B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

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Project Manager

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CHAIN OF CUSTODY FORM

ISA1435

Page _____ of _____

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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LABORATORY REPORT

Prepared For: Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project: Former Cenco Refinery
B0054205.0001.00001

Sampled: 01/19/09
Received: 01/19/09
Revised: 02/03/09 14:47

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

ADDITIONAL
INFORMATION:

Per Client's request, the report is reissued with revised sample ID for the duplicate sample.

Amended report to add J flags

LABORATORY ID	CLIENT ID	MATRIX
ISA1546-01	MW-205-0109	Water
ISA1546-02	MW-203-0109	Water
ISA1546-03	MW-106A-0109	Water
ISA1546-04	MW-107A-0109	Water
ISA1546-05	MW-107A-0109-D	Water
ISA1546-06	W-4-0109	Water
ISA1546-07	TB011909	Water

Reviewed By:



TestAmerica Irvine

Sashmitha Reddy
Project Manager

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801 N. Brand Blvd., Suite 1120
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Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1546

Sampled: 01/19/09
Received: 01/19/09

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-01 (MW-205-0109 - Water)									
Reporting Units: ug/l	Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A20035	50	25	380	1	1/20/2009	1/20/2009
<i> Surrogate: 4-BFB (FID) (65-140%)</i>									
<i> 119 %</i>									
Sample ID: ISA1546-02 (MW-203-0109 - Water)									
Reporting Units: ug/l	Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A22035	50	25	65	1	1/22/2009	1/22/2009
<i> Surrogate: 4-BFB (FID) (65-140%)</i>									
<i> 93 %</i>									
Sample ID: ISA1546-03 (MW-106A-0109 - Water)									
Reporting Units: ug/l	Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A22035	50	25	220	1	1/22/2009	1/23/2009
<i> Surrogate: 4-BFB (FID) (65-140%)</i>									
<i> 126 %</i>									
Sample ID: ISA1546-04 (MW-107A-0109 - Water)									
Reporting Units: ug/l	Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A22035	250	120	1100	5	1/22/2009	1/22/2009
<i> Surrogate: 4-BFB (FID) (65-140%)</i>									
<i> 97 %</i>									
Sample ID: ISA1546-05 (MW-107A-0109-D - Water)									
Reporting Units: ug/l	Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A24005	250	120	1200	5	1/24/2009	1/24/2009
<i> Surrogate: 4-BFB (FID) (65-140%)</i>									
<i> 107 %</i>									
Sample ID: ISA1546-06 (W-4-0109 - Water)									
Reporting Units: ug/l	Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A22035	50	25	140	1	1/22/2009	1/22/2009
<i> Surrogate: 4-BFB (FID) (65-140%)</i>									
<i> 107 %</i>									

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Project ID: Former Cenco Refinery
 B0054205.0001.00001
 Report Number: ISA1546

Sampled: 01/19/09
 Received: 01/19/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-01 (MW-205-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A21009	4.0	0.56	150	2	1/21/2009	1/21/2009	
Bromobenzene	EPA 8260B	9A21009	10	0.54	ND	2	1/21/2009	1/21/2009	
Bromochloromethane	EPA 8260B	9A21009	10	0.80	ND	2	1/21/2009	1/21/2009	
Bromodichloromethane	EPA 8260B	9A21009	4.0	0.60	ND	2	1/21/2009	1/21/2009	
Bromoform	EPA 8260B	9A21009	10	0.80	ND	2	1/21/2009	1/21/2009	
Promomethane	EPA 8260B	9A21009	10	0.84	ND	2	1/21/2009	1/21/2009	
-Butylbenzene	EPA 8260B	9A21009	10	0.74	ND	2	1/21/2009	1/21/2009	
sec-Butylbenzene	EPA 8260B	9A21009	10	0.50	0.60	2	1/21/2009	1/21/2009	J
tert-Butylbenzene	EPA 8260B	9A21009	10	0.44	ND	2	1/21/2009	1/21/2009	
Carbon tetrachloride	EPA 8260B	9A21009	10	0.56	ND	2	1/21/2009	1/21/2009	
Chlorobenzene	EPA 8260B	9A21009	4.0	0.72	ND	2	1/21/2009	1/21/2009	
Chloroethane	EPA 8260B	9A21009	10	0.80	ND	2	1/21/2009	1/21/2009	
Chloroform	EPA 8260B	9A21009	4.0	0.66	ND	2	1/21/2009	1/21/2009	
Chloromethane	EPA 8260B	9A21009	10	0.80	ND	2	1/21/2009	1/21/2009	
2-Chlorotoluene	EPA 8260B	9A21009	10	0.56	ND	2	1/21/2009	1/21/2009	
4-Chlorotoluene	EPA 8260B	9A21009	10	0.58	ND	2	1/21/2009	1/21/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A21009	10	1.9	ND	2	1/21/2009	1/21/2009	
Dibromochloromethane	EPA 8260B	9A21009	4.0	0.80	ND	2	1/21/2009	1/21/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A21009	4.0	0.80	ND	2	1/21/2009	1/21/2009	
Bromomethane	EPA 8260B	9A21009	4.0	0.72	ND	2	1/21/2009	1/21/2009	
2-Dichlorobenzene	EPA 8260B	9A21009	4.0	0.64	ND	2	1/21/2009	1/21/2009	
1,3-Dichlorobenzene	EPA 8260B	9A21009	4.0	0.70	ND	2	1/21/2009	1/21/2009	
4-Dichlorobenzene	EPA 8260B	9A21009	4.0	0.74	ND	2	1/21/2009	1/21/2009	
chlorodifluoromethane	EPA 8260B	9A21009	10	0.52	ND	2	1/21/2009	1/21/2009	
1,1-Dichloroethane	EPA 8260B	9A21009	4.0	0.80	ND	2	1/21/2009	1/21/2009	
1,2-Dichloroethane	EPA 8260B	9A21009	4.0	0.56	ND	2	1/21/2009	1/21/2009	
1-Dichloroethene	EPA 8260B	9A21009	10	0.84	ND	2	1/21/2009	1/21/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A21009	4.0	0.64	3.0	2	1/21/2009	1/21/2009	J
trans-1,2-Dichloroethene	EPA 8260B	9A21009	4.0	0.60	ND	2	1/21/2009	1/21/2009	
1-Dichloropropane	EPA 8260B	9A21009	4.0	0.70	ND	2	1/21/2009	1/21/2009	
1-Dichloropropane	EPA 8260B	9A21009	4.0	0.64	ND	2	1/21/2009	1/21/2009	
2,2-Dichloropropane	EPA 8260B	9A21009	4.0	0.68	ND	2	1/21/2009	1/21/2009	
1,3-Dichloropropene	EPA 8260B	9A21009	4.0	0.44	ND	2	1/21/2009	1/21/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A21009	4.0	0.64	ND	2	1/21/2009	1/21/2009	
1,1-Dichloropropene	EPA 8260B	9A21009	4.0	0.56	ND	2	1/21/2009	1/21/2009	
Ethylbenzene	EPA 8260B	9A21009	4.0	0.50	2.0	2	1/21/2009	1/21/2009	J
hexachlorobutadiene	EPA 8260B	9A21009	10	0.76	ND	2	1/21/2009	1/21/2009	
Isopropylbenzene	EPA 8260B	9A21009	4.0	0.50	1.5	2	1/21/2009	1/21/2009	J
p-Isopropyltoluene	EPA 8260B	9A21009	4.0	0.56	ND	2	1/21/2009	1/21/2009	
ethylene chloride	EPA 8260B	9A21009	10	1.9	ND	2	1/21/2009	1/21/2009	
Phthalene	EPA 8260B	9A21009	10	0.82	ND	2	1/21/2009	1/21/2009	

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B0054205.0001.00001
Report Number: ISA1546

Sampled: 01/19/09
Received: 01/19/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-01 (MW-205-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A21009	4.0	0.54	0.78	2	1/21/2009	1/21/2009	J
Styrene	EPA 8260B	9A21009	4.0	0.40	ND	2	1/21/2009	1/21/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A21009	10	0.54	ND	2	1/21/2009	1/21/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A21009	4.0	0.60	ND	2	1/21/2009	1/21/2009	
Tetrachloroethene	EPA 8260B	9A21009	4.0	0.64	ND	2	1/21/2009	1/21/2009	
Toluene	EPA 8260B	9A21009	4.0	0.72	0.86	2	1/21/2009	1/21/2009	J
1,2,3-Trichlorobenzene	EPA 8260B	9A21009	10	0.60	ND	2	1/21/2009	1/21/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A21009	10	0.96	ND	2	1/21/2009	1/21/2009	
1,1,1-Trichloroethane	EPA 8260B	9A21009	4.0	0.60	ND	2	1/21/2009	1/21/2009	
1,1,2-Trichloroethane	EPA 8260B	9A21009	4.0	0.60	ND	2	1/21/2009	1/21/2009	
Trichloroethene	EPA 8260B	9A21009	4.0	0.52	ND	2	1/21/2009	1/21/2009	
Trichlorofluoromethane	EPA 8260B	9A21009	10	0.68	ND	2	1/21/2009	1/21/2009	
1,2,3-Trichloroproppane	EPA 8260B	9A21009	20	0.80	ND	2	1/21/2009	1/21/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A21009	4.0	0.46	ND	2	1/21/2009	1/21/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A21009	4.0	0.52	ND	2	1/21/2009	1/21/2009	
Vinyl chloride	EPA 8260B	9A21009	10	0.80	ND	2	1/21/2009	1/21/2009	
m,p-Xylenes	EPA 8260B	9A21009	4.0	1.2	ND	2	1/21/2009	1/21/2009	
o-Xylene	EPA 8260B	9A21009	4.0	0.60	ND	2	1/21/2009	1/21/2009	
Xylenes, Total	EPA 8260B	9A21009	8.0	1.8	ND	2	1/21/2009	1/21/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A21009	10	0.50	ND	2	1/21/2009	1/21/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A21009	10	0.56	ND	2	1/21/2009	1/21/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A21009	10	0.64	ND	2	1/21/2009	1/21/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A21009	10	0.66	ND	2	1/21/2009	1/21/2009	
tert-Butanol (TBA)	EPA 8260B	9A21009	100	13	13	2	1/21/2009	1/21/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
92 %									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
90 %									
<i>Surrogate: Toluene-d8 (80-120%)</i>									
102 %									

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Project ID: Former Cenco Refinery
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 Report Number: ISA1546

Sampled: 01/19/09
 Received: 01/19/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-02 (MW-203-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A21009	2.0	0.28	0.53	1	1/21/2009	1/21/2009	J
Bromobenzene	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
Bromoform	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromochloromethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Bromodichloromethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromoform	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Promomethane	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	
-Butylbenzene	EPA 8260B	9A21009	5.0	0.37	ND	1	1/21/2009	1/21/2009	
sec-Butylbenzene	EPA 8260B	9A21009	5.0	0.25	ND	1	1/21/2009	1/21/2009	
tert-Butylbenzene	EPA 8260B	9A21009	5.0	0.22	ND	1	1/21/2009	1/21/2009	
Carbon tetrachloride	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Chlorobenzene	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
Chloroethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Chloroform	EPA 8260B	9A21009	2.0	0.33	ND	1	1/21/2009	1/21/2009	
Chloromethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
2-Chlorotoluene	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
4-Chlorotoluene	EPA 8260B	9A21009	5.0	0.29	ND	1	1/21/2009	1/21/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A21009	5.0	0.97	ND	1	1/21/2009	1/21/2009	
Dibromochloromethane	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromomethane	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
2-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,3-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
4-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.37	ND	1	1/21/2009	1/21/2009	
chlorodifluoromethane	EPA 8260B	9A21009	5.0	0.26	ND	1	1/21/2009	1/21/2009	
1,1-Dichloroethane	EPA 8260B	9A21009	2.0	0.40	0.92	1	1/21/2009	1/21/2009	J
1,2-Dichloroethane	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
1-Dichloroethene	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.32	20	1	1/21/2009	1/21/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.30	3.0	1	1/21/2009	1/21/2009	
1,1-Dichloropropane	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
1,1-Dichloropropane	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
2,2-Dichloropropane	EPA 8260B	9A21009	2.0	0.34	ND	1	1/21/2009	1/21/2009	
1,1,1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.22	ND	1	1/21/2009	1/21/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,1-Dichloropropene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
Ethylbenzene	EPA 8260B	9A21009	2.0	0.25	ND	1	1/21/2009	1/21/2009	
trans-1,3-Dichlorobutadiene	EPA 8260B	9A21009	5.0	0.38	ND	1	1/21/2009	1/21/2009	
Propylbenzene	EPA 8260B	9A21009	2.0	0.25	ND	1	1/21/2009	1/21/2009	
p-Isopropyltoluene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
1,3-thylene chloride	EPA 8260B	9A21009	5.0	0.95	ND	1	1/21/2009	1/21/2009	
Naphthalene	EPA 8260B	9A21009	5.0	0.41	ND	1	1/21/2009	1/21/2009	

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 Report Number: ISA1546

Sampled: 01/19/09
 Received: 01/19/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-02 (MW-203-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A21009	2.0	0.27	ND	1	1/21/2009	1/21/2009	
Styrene	EPA 8260B	9A21009	2.0	0.20	ND	1	1/21/2009	1/21/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Tetrachloroethylene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
Toluene	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.30	ND	1	1/21/2009	1/21/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.48	ND	1	1/21/2009	1/21/2009	
1,1,1-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
1,1,2-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Trichloroethylene	EPA 8260B	9A21009	2.0	0.26	ND	1	1/21/2009	1/21/2009	
Trichlorofluoromethane	EPA 8260B	9A21009	5.0	0.34	ND	1	1/21/2009	1/21/2009	
1,2,3-Trichloropropane	EPA 8260B	9A21009	10	0.40	ND	1	1/21/2009	1/21/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.23	ND	1	1/21/2009	1/21/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.26	ND	1	1/21/2009	1/21/2009	
Vinyl chloride	EPA 8260B	9A21009	5.0	0.40	7.6	1	1/21/2009	1/21/2009	
m,p-Xylenes	EPA 8260B	9A21009	2.0	0.60	ND	1	1/21/2009	1/21/2009	
o-Xylene	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Xylenes, Total	EPA 8260B	9A21009	4.0	0.90	ND	1	1/21/2009	1/21/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A21009	5.0	0.25	0.58	1	1/21/2009	1/21/2009	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A21009	5.0	0.32	0.84	1	1/21/2009	1/21/2009	J
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A21009	5.0	0.33	ND	1	1/21/2009	1/21/2009	
tert-Butanol (TBA)	EPA 8260B	9A21009	50	6.5	40	1	1/21/2009	1/21/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					91 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					89 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					99 %				

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Sampled: 01/19/09
 Received: 01/19/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-03 (MW-106A-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A21009	2.0	0.28	0.46	1	1/21/2009	1/21/2009	J
Bromobenzene	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
Chlorochloromethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Chlorodichloromethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Bromoform	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Promomethane	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	
Butylbenzene	EPA 8260B	9A21009	5.0	0.37	ND	1	1/21/2009	1/21/2009	
sec-Butylbenzene	EPA 8260B	9A21009	5.0	0.25	0.75	1	1/21/2009	1/21/2009	J
tert-Butylbenzene	EPA 8260B	9A21009	5.0	0.22	0.82	1	1/21/2009	1/21/2009	J
Carbon tetrachloride	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Chlorobenzene	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
Chloroethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Chloroform	EPA 8260B	9A21009	2.0	0.33	ND	1	1/21/2009	1/21/2009	
Chloromethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
2-Chlorotoluene	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
4-Chlorotoluene	EPA 8260B	9A21009	5.0	0.29	ND	1	1/21/2009	1/21/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A21009	5.0	0.97	ND	1	1/21/2009	1/21/2009	
Dibromochloromethane	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromomethane	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
2-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,3-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
4-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.37	ND	1	1/21/2009	1/21/2009	
chlorodifluoromethane	EPA 8260B	9A21009	5.0	0.26	ND	1	1/21/2009	1/21/2009	
1,1-Dichloroethane	EPA 8260B	9A21009	2.0	0.40	0.99	1	1/21/2009	1/21/2009	J
1,2-Dichloroethane	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
1-Dichloroethene	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.32	13	1	1/21/2009	1/21/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.30	11	1	1/21/2009	1/21/2009	
1-Dichloropropane	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
1-Dichloropropane	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
2,2-Dichloropropane	EPA 8260B	9A21009	2.0	0.34	ND	1	1/21/2009	1/21/2009	
1,1,2-Dichloropropene	EPA 8260B	9A21009	2.0	0.22	ND	1	1/21/2009	1/21/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,1-Dichloropropene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
Ethylbenzene	EPA 8260B	9A21009	2.0	0.25	ND	1	1/21/2009	1/21/2009	
hexachlorobutadiene	EPA 8260B	9A21009	5.0	0.38	ND	1	1/21/2009	1/21/2009	
Isopropylbenzene	EPA 8260B	9A21009	2.0	0.25	2.9	1	1/21/2009	1/21/2009	
p-Isopropyltoluene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
ethylene chloride	EPA 8260B	9A21009	5.0	0.95	ND	1	1/21/2009	1/21/2009	
Phthalene	EPA 8260B	9A21009	5.0	0.41	ND	1	1/21/2009	1/21/2009	

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Received: 01/19/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-03 (MW-106A-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A21009	2.0	0.27	1.0	1	1/21/2009	1/21/2009	J
Styrene	EPA 8260B	9A21009	2.0	0.20	ND	1	1/21/2009	1/21/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Tetrachloroethene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
Toluene	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.30	ND	1	1/21/2009	1/21/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.48	ND	1	1/21/2009	1/21/2009	
1,1,1-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
1,1,2-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Trichloroethene	EPA 8260B	9A21009	2.0	0.26	0.29	1	1/21/2009	1/21/2009	J
Trichlorofluoromethane	EPA 8260B	9A21009	5.0	0.34	ND	1	1/21/2009	1/21/2009	
1,2,3-Trichloropropane	EPA 8260B	9A21009	10	0.40	ND	1	1/21/2009	1/21/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.23	ND	1	1/21/2009	1/21/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.26	ND	1	1/21/2009	1/21/2009	
Vinyl chloride	EPA 8260B	9A21009	5.0	0.40	6.3	1	1/21/2009	1/21/2009	
m,p-Xylenes	EPA 8260B	9A21009	2.0	0.60	ND	1	1/21/2009	1/21/2009	
o-Xylene	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Xylenes, Total	EPA 8260B	9A21009	4.0	0.90	ND	1	1/21/2009	1/21/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A21009	5.0	0.25	0.31	1	1/21/2009	1/21/2009	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A21009	5.0	0.32	ND	1	1/21/2009	1/21/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A21009	5.0	0.33	ND	1	1/21/2009	1/21/2009	
tert-Butanol (TBA)	EPA 8260B	9A21009	50	6.5	17	1	1/21/2009	1/21/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
<i>Surrogate: Toluene-d8 (80-120%)</i>									
91 %									
90 %									
103 %									

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Sushmitha Reddy
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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-04 (MW-107A-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A21009	2.0	0.28	13	1	1/21/2009	1/21/2009	
Bromobenzene	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
Bromochloromethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromodichloromethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Bromoform	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromomethane	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	
-Butylbenzene	EPA 8260B	9A21009	5.0	0.37	2.3	1	1/21/2009	1/21/2009	J
sec-Butylbenzene	EPA 8260B	9A21009	5.0	0.25	9.1	1	1/21/2009	1/21/2009	
tert-Butylbenzene	EPA 8260B	9A21009	5.0	0.22	1.1	1	1/21/2009	1/21/2009	J
Carbon tetrachloride	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Chlorobenzene	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
Chloroethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Chloroform	EPA 8260B	9A21009	2.0	0.33	ND	1	1/21/2009	1/21/2009	
Chloromethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
2-Chlorotoluene	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
4-Chlorotoluene	EPA 8260B	9A21009	5.0	0.29	ND	1	1/21/2009	1/21/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A21009	5.0	0.97	ND	1	1/21/2009	1/21/2009	
Dibromochloromethane	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
ibromomethane	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
2-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,3-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
1,4-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.37	ND	1	1/21/2009	1/21/2009	
Chlorodifluoromethane	EPA 8260B	9A21009	5.0	0.26	ND	1	1/21/2009	1/21/2009	
1,1-Dichloroethane	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
1,2-Dichloroethane	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
1-Dichloroethene	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.32	6.8	1	1/21/2009	1/21/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.30	7.3	1	1/21/2009	1/21/2009	
2-Dichloropropane	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
3-Dichloropropane	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
2,2-Dichloropropane	EPA 8260B	9A21009	2.0	0.34	ND	1	1/21/2009	1/21/2009	
1,1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.22	ND	1	1/21/2009	1/21/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,1-Dichloropropene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
Ethylbenzene	EPA 8260B	9A21009	2.0	0.25	1.5	1	1/21/2009	1/21/2009	J
hexachlorobutadiene	EPA 8260B	9A21009	5.0	0.38	ND	1	1/21/2009	1/21/2009	
Isopropylbenzene	EPA 8260B	9A21009	2.0	0.25	49	1	1/21/2009	1/21/2009	
p-Isopropyltoluene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
ethylene chloride	EPA 8260B	9A21009	5.0	0.95	ND	1	1/21/2009	1/21/2009	
Phthalene	EPA 8260B	9A21009	5.0	0.41	1.1	1	1/21/2009	1/21/2009	J

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Report Number: ISA1546

Sampled: 01/19/09
Received: 01/19/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-04 (MW-107A-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A21009	2.0	0.27	50	1	1/21/2009	1/21/2009	
Styrene	EPA 8260B	9A21009	2.0	0.20	ND	1	1/21/2009	1/21/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Tetrachloroethylene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
Toluene	EPA 8260B	9A21009	2.0	0.36	1.9	1	1/21/2009	1/21/2009	J
1,2,3-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.30	ND	1	1/21/2009	1/21/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.48	ND	1	1/21/2009	1/21/2009	
1,1,1-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
1,1,2-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Trichloroethylene	EPA 8260B	9A21009	2.0	0.26	2.0	1	1/21/2009	1/21/2009	
Trichlorofluoromethane	EPA 8260B	9A21009	5.0	0.34	ND	1	1/21/2009	1/21/2009	
1,2,3-Trichloropropane	EPA 8260B	9A21009	10	0.40	ND	1	1/21/2009	1/21/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.23	ND	1	1/21/2009	1/21/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.26	0.29	1	1/21/2009	1/21/2009	J
Vinyl chloride	EPA 8260B	9A21009	5.0	0.40	2.0	1	1/21/2009	1/21/2009	J
m,p-Xylenes	EPA 8260B	9A21009	2.0	0.60	9.9	1	1/21/2009	1/21/2009	
o-Xylene	EPA 8260B	9A21009	2.0	0.30	0.43	1	1/21/2009	1/21/2009	J
Xylenes, Total	EPA 8260B	9A21009	4.0	0.90	10	1	1/21/2009	1/21/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A21009	5.0	0.25	ND	1	1/21/2009	1/21/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A21009	5.0	0.32	ND	1	1/21/2009	1/21/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A21009	5.0	0.33	ND	1	1/21/2009	1/21/2009	
tert-Butanol (TBA)	EPA 8260B	9A21009	50	6.5	66	1	1/21/2009	1/21/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
94 %									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
86 %									
<i>Surrogate: Toluene-d8 (80-120%)</i>									
103 %									

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-05 (MW-107A-0109-D - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A21009	2.0	0.28	12	1	1/21/2009	1/21/2009	
Bromobenzene	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
Bromochloromethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromodichloromethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Bromoform	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromomethane	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	
-Butylbenzene	EPA 8260B	9A21009	5.0	0.37	2.1	1	1/21/2009	1/21/2009	J
sec-Butylbenzene	EPA 8260B	9A21009	5.0	0.25	9.0	1	1/21/2009	1/21/2009	
tert-Butylbenzene	EPA 8260B	9A21009	5.0	0.22	1.2	1	1/21/2009	1/21/2009	J
Carbon tetrachloride	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Chlorobenzene	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
Chloroethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Chloroform	EPA 8260B	9A21009	2.0	0.33	ND	1	1/21/2009	1/21/2009	
Chloromethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
2-Chlorotoluene	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
4-Chlorotoluene	EPA 8260B	9A21009	5.0	0.29	ND	1	1/21/2009	1/21/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A21009	5.0	0.97	ND	1	1/21/2009	1/21/2009	
Dibromochloromethane	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
ibromomethane	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
2-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,3-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
4-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.37	ND	1	1/21/2009	1/21/2009	
Chlorodifluoromethane	EPA 8260B	9A21009	5.0	0.26	ND	1	1/21/2009	1/21/2009	
1,1-Dichloroethane	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
1,2-Dichloroethane	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
1-Dichloroethene	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.32	7.2	1	1/21/2009	1/21/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.30	7.5	1	1/21/2009	1/21/2009	
2-Dichloropropane	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
3-Dichloropropane	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
2,2-Dichloropropane	EPA 8260B	9A21009	2.0	0.34	ND	1	1/21/2009	1/21/2009	
1,1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.22	ND	1	1/21/2009	1/21/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,1-Dichloropropene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
Ethylbenzene	EPA 8260B	9A21009	2.0	0.25	1.6	1	1/21/2009	1/21/2009	J
Exachlorobutadiene	EPA 8260B	9A21009	5.0	0.38	ND	1	1/21/2009	1/21/2009	
Isopropylbenzene	EPA 8260B	9A21009	2.0	0.25	48	1	1/21/2009	1/21/2009	
p-Isopropyltoluene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
Ethylene chloride	EPA 8260B	9A21009	5.0	0.95	ND	1	1/21/2009	1/21/2009	
Phthalene	EPA 8260B	9A21009	5.0	0.41	1.3	1	1/21/2009	1/21/2009	J

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-05 (MW-107A-0109-D - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A21009	2.0	0.27	48	1	1/21/2009	1/21/2009	
Styrene	EPA 8260B	9A21009	2.0	0.20	ND	1	1/21/2009	1/21/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Tetrachloroethene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
Toluene	EPA 8260B	9A21009	2.0	0.36	1.9	1	1/21/2009	1/21/2009	J
1,2,3-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.30	ND	1	1/21/2009	1/21/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.48	ND	1	1/21/2009	1/21/2009	
1,1,1-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
1,1,2-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Trichloroethene	EPA 8260B	9A21009	2.0	0.26	2.1	1	1/21/2009	1/21/2009	
Trichlorofluoromethane	EPA 8260B	9A21009	5.0	0.34	ND	1	1/21/2009	1/21/2009	
1,2,3-Trichloropropane	EPA 8260B	9A21009	10	0.40	ND	1	1/21/2009	1/21/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.23	ND	1	1/21/2009	1/21/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.26	0.27	1	1/21/2009	1/21/2009	J
Vinyl chloride	EPA 8260B	9A21009	5.0	0.40	1.8	1	1/21/2009	1/21/2009	J
m,p-Xylenes	EPA 8260B	9A21009	2.0	0.60	9.6	1	1/21/2009	1/21/2009	
o-Xylene	EPA 8260B	9A21009	2.0	0.30	0.38	1	1/21/2009	1/21/2009	J
Xylenes, Total	EPA 8260B	9A21009	4.0	0.90	10	1	1/21/2009	1/21/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A21009	5.0	0.25	ND	1	1/21/2009	1/21/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A21009	5.0	0.32	ND	1	1/21/2009	1/21/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A21009	5.0	0.33	ND	1	1/21/2009	1/21/2009	
tert-Butanol (TBA)	EPA 8260B	9A21009	50	6.5	62	1	1/21/2009	1/21/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					94 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					87 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					101 %				

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-06 (W-4-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A21009	2.0	0.28	0.51	1	1/21/2009	1/21/2009	J
Bromobenzene	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
Bromochloromethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromodichloromethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Bromoform	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromomethane	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	
1-Butylbenzene	EPA 8260B	9A21009	5.0	0.37	ND	1	1/21/2009	1/21/2009	
sec-Butylbenzene	EPA 8260B	9A21009	5.0	0.25	1.4	1	1/21/2009	1/21/2009	J
tert-Butylbenzene	EPA 8260B	9A21009	5.0	0.22	0.37	1	1/21/2009	1/21/2009	J
Carbon tetrachloride	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Chlorobenzene	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
Chloroethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Chloroform	EPA 8260B	9A21009	2.0	0.33	ND	1	1/21/2009	1/21/2009	
Chloromethane	EPA 8260B	9A21009	5.0	0.40	0.50	1	1/21/2009	1/21/2009	J
2-Chlorotoluene	EPA 8260B	9A21009	5.0	0.28	4.3	1	1/21/2009	1/21/2009	J
1-Chlorotoluene	EPA 8260B	9A21009	5.0	0.29	ND	1	1/21/2009	1/21/2009	
1,2-Dibromo-3-chloropropane	EPA 8260B	9A21009	5.0	0.97	ND	1	1/21/2009	1/21/2009	
Dibromochloromethane	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
Bibromomethane	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
1,2-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,3-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
1,4-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.37	ND	1	1/21/2009	1/21/2009	
1-Chlorodifluoromethane	EPA 8260B	9A21009	5.0	0.26	ND	1	1/21/2009	1/21/2009	
1,1-Dichloroethane	EPA 8260B	9A21009	2.0	0.40	1.0	1	1/21/2009	1/21/2009	J
1,2-Dichloroethane	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
1-Dichloroethene	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	M1, M2
cis-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.32	7.6	1	1/21/2009	1/21/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
2-Dichloropropane	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
1,3-Dichloropropane	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
2,2-Dichloropropane	EPA 8260B	9A21009	2.0	0.34	ND	1	1/21/2009	1/21/2009	
1-s-1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.22	ND	1	1/21/2009	1/21/2009	M1
1-trans-1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,1-Dichloropropene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
Ethylbenzene	EPA 8260B	9A21009	2.0	0.25	ND	1	1/21/2009	1/21/2009	
Exachlorobutadiene	EPA 8260B	9A21009	5.0	0.38	ND	1	1/21/2009	1/21/2009	
Isopropylbenzene	EPA 8260B	9A21009	2.0	0.25	5.6	1	1/21/2009	1/21/2009	
p-Isopropyltoluene	EPA 8260B	9A21009	2.0	0.28	0.45	1	1/21/2009	1/21/2009	J
Ethylene chloride	EPA 8260B	9A21009	5.0	0.95	ND	1	1/21/2009	1/21/2009	R
Naphthalene	EPA 8260B	9A21009	5.0	0.41	0.43	1	1/21/2009	1/21/2009	J

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1546

Sampled: 01/19/09
Received: 01/19/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-06 (W-4-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A21009	2.0	0.27	2.8	1	1/21/2009	1/21/2009	
Styrene	EPA 8260B	9A21009	2.0	0.20	ND	1	1/21/2009	1/21/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Tetrachloroethene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
Toluene	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.30	ND	1	1/21/2009	1/21/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.48	ND	1	1/21/2009	1/21/2009	
1,1,1-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
1,1,2-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Trichloroethene	EPA 8260B	9A21009	2.0	0.26	ND	1	1/21/2009	1/21/2009	
Trichlorofluoromethane	EPA 8260B	9A21009	5.0	0.34	ND	1	1/21/2009	1/21/2009	
1,2,3-Trichloropropane	EPA 8260B	9A21009	10	0.40	ND	1	1/21/2009	1/21/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.23	ND	1	1/21/2009	1/21/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.26	ND	1	1/21/2009	1/21/2009	
Vinyl chloride	EPA 8260B	9A21009	5.0	0.40	1.8	1	1/21/2009	1/21/2009	J
m,p-Xylenes	EPA 8260B	9A21009	2.0	0.60	ND	1	1/21/2009	1/21/2009	
o-Xylene	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Xylenes, Total	EPA 8260B	9A21009	4.0	0.90	ND	1	1/21/2009	1/21/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A21009	5.0	0.25	0.41	1	1/21/2009	1/21/2009	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A21009	5.0	0.32	ND	1	1/21/2009	1/21/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A21009	5.0	0.33	0.38	1	1/21/2009	1/21/2009	J
tert-Butanol (TBA)	EPA 8260B	9A21009	50	6.5	47	1	1/21/2009	1/21/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>						91 %			
<i>Surrogate: Dibromofluoromethane (80-120%)</i>						88 %			
<i>Surrogate: Toluene-d8 (80-120%)</i>						102 %			

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Sampled: 01/19/09
 Received: 01/19/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-07 (TB011909 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
Bromobenzene	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
Bromoform	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Bromochloromethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Bromodichloromethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Bromoform	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
Promomethane	EPA 8260B	9A21009	5.0	0.42	ND	1	1/21/2009	1/21/2009	
sec-Butylbenzene	EPA 8260B	9A21009	5.0	0.37	ND	1	1/21/2009	1/21/2009	
tert-Butylbenzene	EPA 8260B	9A21009	5.0	0.25	ND	1	1/21/2009	1/21/2009	
Carbon tetrachloride	EPA 8260B	9A21009	5.0	0.22	ND	1	1/21/2009	1/21/2009	
Chlorobenzene	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Chloroethane	EPA 8260B	9A21009	5.0	0.36	ND	1	1/21/2009	1/21/2009	
Chloroform	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
Chloromethane	EPA 8260B	9A21009	5.0	0.33	ND	1	1/21/2009	1/21/2009	
Chloroethane	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
2-Chlorotoluene	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
4-Chlorotoluene	EPA 8260B	9A21009	5.0	0.29	ND	1	1/21/2009	1/21/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A21009	5.0	0.97	ND	1	1/21/2009	1/21/2009	
Dibromochloromethane	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
bromomethane	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
2-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1,3-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
4-Dichlorobenzene	EPA 8260B	9A21009	2.0	0.37	ND	1	1/21/2009	1/21/2009	
chlorodifluoromethane	EPA 8260B	9A21009	5.0	0.26	ND	1	1/21/2009	1/21/2009	
1,1-Dichloroethane	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
1,2-Dichloroethane	EPA 8260B	9A21009	2.0	0.40	ND	1	1/21/2009	1/21/2009	
1-Dichloroethene	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.42	ND	1	1/21/2009	1/21/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
1-Dichloropropane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
-Dichloropropane	EPA 8260B	9A21009	2.0	0.35	ND	1	1/21/2009	1/21/2009	
2,2-Dichloropropane	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
-1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.34	ND	1	1/21/2009	1/21/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A21009	2.0	0.22	ND	1	1/21/2009	1/21/2009	
1,1-Dichloropropene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
Ethylbenzene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
1-Chlorobutadiene	EPA 8260B	9A21009	5.0	0.38	ND	1	1/21/2009	1/21/2009	
Isopropylbenzene	EPA 8260B	9A21009	2.0	0.25	ND	1	1/21/2009	1/21/2009	
p-Isopropyltoluene	EPA 8260B	9A21009	2.0	0.28	ND	1	1/21/2009	1/21/2009	
1-Chloroethylene	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Phthalene	EPA 8260B	9A21009	5.0	0.95	ND	1	1/21/2009	1/21/2009	
	EPA 8260B	9A21009	5.0	0.41	ND	1	1/21/2009	1/21/2009	

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Sampled: 01/19/09
Received: 01/19/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-07 (TB011909 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A21009	2.0	0.27	ND	1	1/21/2009	1/21/2009	
Styrene	EPA 8260B	9A21009	2.0	0.20	ND	1	1/21/2009	1/21/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A21009	5.0	0.27	ND	1	1/21/2009	1/21/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Tetrachloroethylene	EPA 8260B	9A21009	2.0	0.32	ND	1	1/21/2009	1/21/2009	
Toluene	EPA 8260B	9A21009	2.0	0.36	ND	1	1/21/2009	1/21/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.30	ND	1	1/21/2009	1/21/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A21009	5.0	0.48	ND	1	1/21/2009	1/21/2009	
1,1,1-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
1,1,2-Trichloroethane	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Trichloroethylene	EPA 8260B	9A21009	2.0	0.26	ND	1	1/21/2009	1/21/2009	
Trichlorofluoromethane	EPA 8260B	9A21009	5.0	0.34	ND	1	1/21/2009	1/21/2009	
1,2,3-Trichloropropane	EPA 8260B	9A21009	10	0.40	ND	1	1/21/2009	1/21/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.23	ND	1	1/21/2009	1/21/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A21009	2.0	0.26	ND	1	1/21/2009	1/21/2009	
Vinyl chloride	EPA 8260B	9A21009	5.0	0.40	ND	1	1/21/2009	1/21/2009	
m,p-Xylenes	EPA 8260B	9A21009	2.0	0.60	ND	1	1/21/2009	1/21/2009	
o-Xylene	EPA 8260B	9A21009	2.0	0.30	ND	1	1/21/2009	1/21/2009	
Xylenes, Total	EPA 8260B	9A21009	4.0	0.90	ND	1	1/21/2009	1/21/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A21009	5.0	0.25	ND	1	1/21/2009	1/21/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A21009	5.0	0.28	ND	1	1/21/2009	1/21/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A21009	5.0	0.32	ND	1	1/21/2009	1/21/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A21009	5.0	0.33	0.37	1	1/21/2009	1/21/2009	J
tert-Butanol (TBA)	EPA 8260B	9A21009	50	6.5	ND	1	1/21/2009	1/21/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>						89 %			
<i>Surrogate: Dibromofluoromethane (80-120%)</i>						88 %			
<i>Surrogate: Toluene-d8 (80-120%)</i>						100 %			

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Sampled: 01/19/09
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DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Method	Reporting Batch	Sample Limit	Dilution MDL	Date Result	Factor Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-01 (MW-205-0109 - Water)								
Reporting Units: mg/l								
Methane	RSK-175 MOD.	9A20116	0.0010	0.00030	0.085	1	1/20/2009	1/20/2009

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INORGANICS

Analyte	Method	Reporting Units:	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1546-01 (MW-205-0109 - Water)										
Reporting Units: mg/l										
Alkalinity as CaCO ₃	SM2320B	mg/l	9A26083	2.0	2.0	620	1	1/26/2009	1/26/2009	
Ferrous Iron	SM 3500-Fe D	mg/l	9A20115	0.10	0.10	2.0	1	1/20/2009	1/20/2009	HFT
Chromium VI	EPA 7199	mg/l	9A19077	0.0020	0.00025	ND	1	1/19/2009	1/19/2009	
Nitrate-N	EPA 300.0	mg/l	9A19108	0.11	0.060	ND	1	1/19/2009	1/19/2009	
Sulfate	EPA 300.0	mg/l	9A19108	10	4.0	290	20	1/19/2009	1/19/2009	
Sample ID: ISA1546-02 (MW-203-0109 - Water)										
Reporting Units: mg/l										
Chromium VI	EPA 7199	mg/l	9A19077	0.0020	0.00025	ND	1	1/19/2009	1/19/2009	
Sample ID: ISA1546-03 (MW-106A-0109 - Water)										
Reporting Units: mg/l										
Chromium VI	EPA 7199	mg/l	9A19077	0.0020	0.00025	ND	1	1/19/2009	1/19/2009	
Sample ID: ISA1546-04 (MW-107A-0109 - Water)										
Reporting Units: mg/l										
Chromium VI	EPA 7199	mg/l	9A19077	0.0020	0.00025	ND	1	1/19/2009	1/19/2009	
Sample ID: ISA1546-05 (MW-107A-0109-D - Water)										
Reporting Units: mg/l										
Chromium VI	EPA 7199	mg/l	9A19077	0.0020	0.00025	ND	1	1/19/2009	1/19/2009	
Sample ID: ISA1546-06 (W-4-0109 - Water)										
Reporting Units: mg/l										
Chromium VI	EPA 7199	mg/l	9A19077	0.0020	0.00025	ND	1	1/19/2009	1/19/2009	

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SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: MW-205-0109 (ISA1546-01) - Water					
EPA 300.0	2	01/19/2009 08:00	01/19/2009 18:15	01/19/2009 19:30	01/19/2009 19:45
EPA 7199	1	01/19/2009 08:00	01/19/2009 18:15	01/19/2009 19:45	01/19/2009 19:51
SM 3500-Fe D	1	01/19/2009 08:00	01/19/2009 18:15	01/20/2009 10:00	01/20/2009 10:00
Sample ID: MW-203-0109 (ISA1546-02) - Water					
EPA 7199	1	01/19/2009 12:00	01/19/2009 18:15	01/19/2009 19:45	01/19/2009 20:01
Sample ID: MW-106A-0109 (ISA1546-03) - Water					
EPA 7199	1	01/19/2009 11:00	01/19/2009 18:15	01/19/2009 19:45	01/19/2009 20:12
Sample ID: MW-107A-0109 (ISA1546-04) - Water					
EPA 7199	1	01/19/2009 11:35	01/19/2009 18:15	01/19/2009 19:45	01/19/2009 20:44
Sample ID: MW-107A-0109-D (ISA1546-05) - Water					
EPA 7199	1	01/19/2009 11:35	01/19/2009 18:15	01/19/2009 19:45	01/19/2009 21:26
Sample ID: W-4-0109 (ISA1546-06) - Water					
EPA 7199	1	01/19/2009 15:05	01/19/2009 18:15	01/19/2009 19:45	01/19/2009 21:36

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Received: 01/19/09

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20035 Extracted: 01/20/09</u>										
Blank Analyzed: 01/20/2009 (9A20035-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	ug/l							
Surrogate: 4-BFB (FID)	10.7		ug/l	10.0		107	65-140			
LCS Analyzed: 01/20/2009 (9A20035-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	792	50	ug/l	800		99	80-120			
Surrogate: 4-BFB (FID)	15.5		ug/l	10.0		155	65-140			Z2
Matrix Spike Analyzed: 01/20/2009 (9A20035-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)	391	50	ug/l	220	157	106	65-140			
Surrogate: 4-BFB (FID)	12.7		ug/l	10.0		127	65-140			
Matrix Spike Dup Analyzed: 01/20/2009 (9A20035-MSD1)										
Volatile Fuel Hydrocarbons (C6-C12)	386	50	ug/l	220	157	104	65-140	1	20	
Surrogate: 4-BFB (FID)	12.8		ug/l	10.0		128	65-140			
<u>Batch: 9A22035 Extracted: 01/22/09</u>										
Blank Analyzed: 01/22/2009 (9A22035-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	ug/l							
Surrogate: 4-BFB (FID)	10.3		ug/l	10.0		103	65-140			
LCS Analyzed: 01/22/2009 (9A22035-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	829	50	ug/l	800		104	80-120			
Surrogate: 4-BFB (FID)	14.1		ug/l	10.0		141	65-140			Z2
Matrix Spike Analyzed: 01/22/2009 (9A22035-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)	248	50	ug/l	220	ND	113	65-140			
Surrogate: 4-BFB (FID)	12.3		ug/l	10.0		123	65-140			

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ATTENDI IL LANCIO DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A22035 Extracted: 01/22/09</u>										
Matrix Spike Dup Analyzed: 01/22/2009 (9A22035-MSD1)										
Volatile Fuel Hydrocarbons (C6-C12)	247	50	ug/l	220	ND	112	65-140	1	20	
Surrogate: 4-BFB (FID)	12.3		ug/l	10.0		123	65-140			
<u>Batch: 9A24005 Extracted: 01/24/09</u>										
Blank Analyzed: 01/24/2009 (9A24005-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	ug/l							
Surrogate: 4-BFB (FID)	9.66		ug/l	10.0		97	65-140			
CS Analyzed: 01/24/2009 (9A24005-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	848	50	ug/l	800		106	80-120			
Surrogate: 4-BFB (FID)	13.4		ug/l	10.0		134	65-140			
Matrix Spike Analyzed: 01/24/2009 (9A24005-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)	310	50	ug/l	220	44.5	121	65-140			
Surrogate: 4-BFB (FID)	9.73		ug/l	10.0		97	65-140			
Matrix Spike Dup Analyzed: 01/24/2009 (9A24005-MSD1)										
Volatile Fuel Hydrocarbons (C6-C12)	307	50	ug/l	220	44.5	119	65-140	1	20	
Surrogate: 4-BFB (FID)	10.2		ug/l	10.0		102	65-140			

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1546

Sampled: 01/19/09
Received: 01/19/09

METHOD/BLANK/QC/DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A21009 Extracted: 01/21/09</u>										
Blank Analyzed: 01/21/2009 (9A21009-BLK1)										
Benzene	ND	2.0	ug/l							
Bromobenzene	ND	5.0	ug/l							
Bromochloromethane	ND	5.0	ug/l							
Bromodichloromethane	ND	2.0	ug/l							
Bromoform	ND	5.0	ug/l							
Bromomethane	ND	5.0	ug/l							
n-Butylbenzene	ND	5.0	ug/l							
sec-Butylbenzene	ND	5.0	ug/l							
tert-Butylbenzene	ND	5.0	ug/l							
Carbon tetrachloride	ND	5.0	ug/l							
Chlorobenzene	ND	2.0	ug/l							
Chloroethane	ND	5.0	ug/l							
Chloroform	ND	2.0	ug/l							
Chloromethane	ND	5.0	ug/l							
2-Chlorotoluene	ND	5.0	ug/l							
4-Chlorotoluene	ND	5.0	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	ug/l							
Dibromochloromethane	ND	2.0	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	ug/l							
Dibromomethane	ND	2.0	ug/l							
1,2-Dichlorobenzene	ND	2.0	ug/l							
1,3-Dichlorobenzene	ND	2.0	ug/l							
1,4-Dichlorobenzene	ND	2.0	ug/l							
Dichlorodifluoromethane	ND	5.0	ug/l							
1,1-Dichloroethane	ND	2.0	ug/l							
1,2-Dichloroethane	ND	2.0	ug/l							
1,1-Dichloroethene	ND	5.0	ug/l							
cis-1,2-Dichloroethene	ND	2.0	ug/l							
trans-1,2-Dichloroethene	ND	2.0	ug/l							
1,2-Dichloropropane	ND	2.0	ug/l							
1,3-Dichloropropane	ND	2.0	ug/l							
2,2-Dichloropropane	ND	2.0	ug/l							
cis-1,3-Dichloropropene	ND	2.0	ug/l							
trans-1,3-Dichloropropene	ND	2.0	ug/l							
1,1-Dichloropropene	ND	2.0	ug/l							
Ethylbenzene	ND	2.0	ug/l							

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A21009 Extracted: 01/21/09</u>										
Blank Analyzed: 01/21/2009 (9A21009-BLK1)										
hexachlorobutadiene	ND	5.0	ug/l							
Isopropylbenzene	ND	2.0	ug/l							
p-Isopropyltoluene	ND	2.0	ug/l							
m-Methylene chloride	ND	5.0	ug/l							
Naphthalene	ND	5.0	ug/l							
n-Propylbenzene	ND	2.0	ug/l							
Styrene	ND	2.0	ug/l							
1,1,2-Tetrachloroethane	ND	5.0	ug/l							
1,2,2-Tetrachloroethane	ND	2.0	ug/l							
Tetrachloroethene	ND	2.0	ug/l							
oluene	ND	2.0	ug/l							
2,3-Trichlorobenzene	ND	5.0	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	ug/l							
1,1-Trichloroethane	ND	2.0	ug/l							
1,2-Trichloroethane	ND	2.0	ug/l							
Trichloroethene	ND	2.0	ug/l							
Trichlorofluoromethane	ND	5.0	ug/l							
2,3-Trichloropropane	ND	10	ug/l							
2,4-Trimethylbenzene	ND	2.0	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	ug/l							
tinyl chloride	ND	5.0	ug/l							
p-Xylenes	ND	2.0	ug/l							
o-Xylene	ND	2.0	ug/l							
Vylenes, Total	ND	4.0	ug/l							
i-isopropyl Ether (DIPE)	ND	5.0	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	ug/l							
rt-Amyl Methyl Ether (TAME)	ND	5.0	ug/l							
t-Butanol (TBA)	ND	50	ug/l							
Surrogate: 4-Bromo fluorobenzene	23.0	ug/l	25.0		92	80-120				
Surrogate: Dibromo fluoromethane	23.6	ug/l	25.0		94	80-120				
Surrogate: Toluene-d8	24.9	ug/l	25.0		100	80-120				

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METHOD HEAVS/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A21009 Extracted: 01/21/09</u>										
LCS Analyzed: 01/21/2009 (9A21009-BS1)										
Benzene	24.5	2.0	ug/l	25.0		98	70-120			
Bromobenzene	25.1	5.0	ug/l	25.0		100	75-120			
Bromochloromethane	24.6	5.0	ug/l	25.0		99	70-130			
Bromodichloromethane	23.4	2.0	ug/l	25.0		94	70-135			
Bromoform	18.3	5.0	ug/l	25.0		73	55-130			
Bromomethane	22.9	5.0	ug/l	25.0		92	65-140			
n-Butylbenzene	25.9	5.0	ug/l	25.0		104	70-130			
sec-Butylbenzene	26.8	5.0	ug/l	25.0		107	70-125			
tert-Butylbenzene	25.8	5.0	ug/l	25.0		103	70-125			
Carbon tetrachloride	24.2	5.0	ug/l	25.0		97	65-140			
Chlorobenzene	24.0	2.0	ug/l	25.0		96	75-120			
Chloroethane	23.6	5.0	ug/l	25.0		94	60-140			
Chloroform	23.8	2.0	ug/l	25.0		95	70-130			
Chloromethane	22.2	5.0	ug/l	25.0		89	50-140			
2-Chlorotoluene	26.2	5.0	ug/l	25.0		105	70-125			
4-Chlorotoluene	26.4	5.0	ug/l	25.0		106	75-125			
1,2-Dibromo-3-chloropropane	23.7	5.0	ug/l	25.0		95	50-135			
Dibromochloromethane	20.0	2.0	ug/l	25.0		80	70-140			
1,2-Dibromoethane (EDB)	21.6	2.0	ug/l	25.0		87	75-125			
Dibromomethane	23.8	2.0	ug/l	25.0		95	70-125			
1,2-Dichlorobenzene	24.8	2.0	ug/l	25.0		99	75-120			
1,3-Dichlorobenzene	24.8	2.0	ug/l	25.0		99	75-120			
1,4-Dichlorobenzene	21.1	2.0	ug/l	25.0		84	75-120			
Dichlorodifluoromethane	22.1	5.0	ug/l	25.0		88	35-155			
1,1-Dichloroethane	26.6	2.0	ug/l	25.0		107	70-125			
1,2-Dichloroethane	22.8	2.0	ug/l	25.0		91	60-140			
1,1-Dichloroethene	19.2	5.0	ug/l	25.0		77	70-125			
cis-1,2-Dichloroethene	25.2	2.0	ug/l	25.0		101	70-125			
trans-1,2-Dichloroethene	22.7	2.0	ug/l	25.0		91	70-125			
1,2-Dichloropropane	25.3	2.0	ug/l	25.0		101	70-125			
1,3-Dichloropropane	23.9	2.0	ug/l	25.0		96	70-120			
2,2-Dichloropropane	25.2	2.0	ug/l	25.0		101	65-140			
cis-1,3-Dichloropropene	31.1	2.0	ug/l	25.0		124	75-125			
trans-1,3-Dichloropropene	23.3	2.0	ug/l	25.0		93	70-125			
1,1-Dichloropropene	25.2	2.0	ug/l	25.0		101	75-130			
Ethylbenzene	25.7	2.0	ug/l	25.0		103	75-125			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>atch: 9A21009 Extracted: 01/21/09</u>										
LCS Analyzed: 01/21/2009 (9A21009-BS1)										
1,3-butadiene	22.8	5.0	ug/l	25.0		91	65-135			
Isopropylbenzene	26.4	2.0	ug/l	25.0		106	75-130			
p-Isopropyltoluene	24.8	2.0	ug/l	25.0		99	75-125			
Methylene chloride	28.5	5.0	ug/l	25.0		114	55-130			
Phthalene	24.7	5.0	ug/l	25.0		99	55-135			
n-Propylbenzene	27.5	2.0	ug/l	25.0		110	75-130			
Styrene	25.9	2.0	ug/l	25.0		104	75-130			
1,1,2-Tetrachloroethane	22.2	5.0	ug/l	25.0		89	70-130			
1,1,2-Tetrachloroethane	27.3	2.0	ug/l	25.0		109	55-130			
Tetrachloroethene	22.6	2.0	ug/l	25.0		90	70-125			
oluene	25.1	2.0	ug/l	25.0		100	70-120			
1,2,3-Trichlorobenzene	24.0	5.0	ug/l	25.0		96	65-125			
1,2,4-Trichlorobenzene	24.4	5.0	ug/l	25.0		98	70-135			
1,1,1-Trichloroethane	24.9	2.0	ug/l	25.0		100	65-135			
1,1,2-Trichloroethane	25.9	2.0	ug/l	25.0		104	70-125			
Trichloroethene	23.9	2.0	ug/l	25.0		96	70-125			
Trichlorofluoromethane	22.4	5.0	ug/l	25.0		90	65-145			
1,1,2-Trichloropropane	25.0	10	ug/l	25.0		100	60-130			
2,4-Trimethylbenzene	25.9	2.0	ug/l	25.0		103	75-125			
1,3,5-Trimethylbenzene	26.3	2.0	ug/l	25.0		105	75-125			
Chloride	23.0	5.0	ug/l	25.0		92	55-135			
p-Xylenes	51.2	2.0	ug/l	50.0		102	75-125			
o-Xylene	24.4	2.0	ug/l	25.0		98	75-125			
Xylenes, Total	75.6	4.0	ug/l	75.0		101	70-125			
-isopropyl Ether (DIPE)	26.9	5.0	ug/l	25.0		108	60-135			
Ethyl tert-Butyl Ether (ETBE)	27.8	5.0	ug/l	25.0		111	65-135			
Methyl-tert-butyl Ether (MTBE)	27.0	5.0	ug/l	25.0		108	60-135			
t-Amyl Methyl Ether (TAME)	29.0	5.0	ug/l	25.0		116	60-135			
t-Butanol (TBA)	128	50	ug/l	125		103	70-135			
Surrogate: 4-Bromofluorobenzene	24.0		ug/l	25.0		96	80-120			
Surrogate: Dibromofluoromethane	25.3		ug/l	25.0		101	80-120			
Surrogate: Toluene-d8	25.2		ug/l	25.0		101	80-120			

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METHOD/BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A21009 Extracted: 01/21/09</u>										
Matrix Spike Analyzed: 01/21/2009 (9A21009-MS1)										
Source: ISA1546-06										
Benzene	26.7	2.0	ug/l	25.0	0.510	105	65-125			
Bromobenzene	27.8	5.0	ug/l	25.0	ND	111	70-125			
Bromo-chloromethane	24.5	5.0	ug/l	25.0	ND	98	65-135			
Bromo-dichloromethane	24.4	2.0	ug/l	25.0	ND	97	70-135			
Bromoform	20.2	5.0	ug/l	25.0	ND	81	55-135			
Bromomethane	21.6	5.0	ug/l	25.0	ND	87	55-145			
n-Butylbenzene	28.8	5.0	ug/l	25.0	ND	115	65-135			
sec-Butylbenzene	30.9	5.0	ug/l	25.0	1.36	118	70-125			
tert-Butylbenzene	30.3	5.0	ug/l	25.0	0.370	120	65-130			
Carbon tetrachloride	26.4	5.0	ug/l	25.0	ND	106	65-140			
Chlorobenzene	26.6	2.0	ug/l	25.0	ND	106	75-125			
Chloroethane	23.3	5.0	ug/l	25.0	ND	93	55-140			
Chloroform	22.7	2.0	ug/l	25.0	ND	91	65-135			
Chloromethane	21.3	5.0	ug/l	25.0	0.500	83	45-145			
2-Chlorotoluene	28.0	5.0	ug/l	25.0	4.31	95	65-135			
4-Chlorotoluene	28.6	5.0	ug/l	25.0	ND	115	70-135			
1,2-Dibromo-3-chloropropane	23.8	5.0	ug/l	25.0	ND	95	45-145			
Dibromo-chloromethane	21.0	2.0	ug/l	25.0	ND	84	65-140			
1,2-Dibromoethane (EDB)	23.7	2.0	ug/l	25.0	ND	95	70-130			
Dibromomethane	25.4	2.0	ug/l	25.0	ND	102	65-135			
1,2-Dichlorobenzene	27.8	2.0	ug/l	25.0	ND	111	75-125			
1,3-Dichlorobenzene	27.8	2.0	ug/l	25.0	ND	111	75-125			
1,4-Dichlorobenzene	23.6	2.0	ug/l	25.0	ND	95	75-125			
Dichlorodifluoromethane	19.9	5.0	ug/l	25.0	ND	80	25-155			
1,1-Dichloroethane	26.5	2.0	ug/l	25.0	1.05	102	65-130			MI, M2
1,2-Dichloroethane	24.1	2.0	ug/l	25.0	ND	97	60-140			
1,1-Dichloroethene	12.6	5.0	ug/l	25.0	ND	51	60-130			
cis-1,2-Dichloroethene	31.5	2.0	ug/l	25.0	7.57	96	65-130			
trans-1,2-Dichloroethene	22.8	2.0	ug/l	25.0	ND	91	65-130			
1,2-Dichloropropane	27.1	2.0	ug/l	25.0	ND	108	65-130			
1,3-Dichloropropane	25.3	2.0	ug/l	25.0	ND	101	65-135			
2,2-Dichloropropane	25.2	2.0	ug/l	25.0	ND	101	60-145			
cis-1,3-Dichloropropene	33.2	2.0	ug/l	25.0	ND	133	70-130			M1
trans-1,3-Dichloropropene	25.5	2.0	ug/l	25.0	ND	102	65-135			
1,1-Dichloropropene	27.4	2.0	ug/l	25.0	ND	109	70-135			
Ethylbenzene	27.6	2.0	ug/l	25.0	ND	110	65-130			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A21009 Extracted: 01/21/09</u>										
Matrix Spike Analyzed: 01/21/2009 (9A21009-MS1)										
Source: ISA1546-06										
Ihexachlorobutadiene	26.4	5.0	ug/l	25.0	ND	106	60-135			
Isopropylbenzene	34.0	2.0	ug/l	25.0	5.62	113	70-135			
p-Isopropyltoluene	28.2	2.0	ug/l	25.0	0.450	111	65-130			
Methylene chloride	26.8	5.0	ug/l	25.0	ND	107	50-135			
Naphthalene	30.6	5.0	ug/l	25.0	0.430	121	50-140			
n-Propylbenzene	31.6	2.0	ug/l	25.0	2.76	115	70-135			
Styrene	29.3	2.0	ug/l	25.0	ND	117	50-145			
1,1,2-Tetrachloroethane	24.4	5.0	ug/l	25.0	ND	98	65-140			
1,2,2-Tetrachloroethane	28.5	2.0	ug/l	25.0	ND	114	55-135			
Tetrachloroethene	24.9	2.0	ug/l	25.0	ND	100	65-130			
Toluene	28.1	2.0	ug/l	25.0	ND	112	70-125			
2,3-Trichlorobenzene	28.0	5.0	ug/l	25.0	ND	112	60-135			
1,2,4-Trichlorobenzene	29.0	5.0	ug/l	25.0	ND	116	65-135			
1,1,1-Trichloroethane	25.3	2.0	ug/l	25.0	ND	101	65-140			
1,2-Trichloroethane	27.5	2.0	ug/l	25.0	ND	110	65-130			
Trichloroethene	26.6	2.0	ug/l	25.0	ND	106	65-125			
Trichlorofluoromethane	19.6	5.0	ug/l	25.0	ND	78	60-145			
2,3-Trichloropropane	26.4	10	ug/l	25.0	ND	105	55-135			
2,4-Trimethylbenzene	28.4	2.0	ug/l	25.0	ND	114	55-135			
1,3,5-Trimethylbenzene	28.6	2.0	ug/l	25.0	ND	114	70-130			
Vinyl chloride	24.3	5.0	ug/l	25.0	1.85	90	45-140			
p-Xylenes	56.6	2.0	ug/l	50.0	ND	113	65-130			
o-Xylene	27.3	2.0	ug/l	25.0	ND	109	65-125			
Xylenes, Total	83.9	4.0	ug/l	75.0	ND	112	60-130			
-isopropyl Ether (DIPE)	27.0	5.0	ug/l	25.0	0.410	107	60-140			
Ethyl tert-Butyl Ether (ETBE)	28.6	5.0	ug/l	25.0	ND	115	60-135			
Methyl-tert-butyl Ether (MTBE)	27.4	5.0	ug/l	25.0	ND	109	55-145			
t-Amyl Methyl Ether (TAME)	29.5	5.0	ug/l	25.0	0.380	117	60-140			
t-Butanol (TBA)	217	50	ug/l	125	46.6	136	65-140			
Surrogate: 4-Bromofluorobenzene	23.0		ug/l	25.0		92	80-120			
Surrogate: Dibromofluoromethane	21.8		ug/l	25.0		87	80-120			
Surrogate: Toluene-d8	25.1		ug/l	25.0		101	80-120			

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Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1546

Sampled: 01/19/09
Received: 01/19/09

METHOD/BLANK/GC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A21009 Extracted: 01/21/09</u>										
Matrix Spike Dup Analyzed: 01/21/2009 (9A21009-MSD1)										
Source: ISA1546-06										
Benzene	25.0	2.0	ug/l	25.0	0.510	98	65-125	7	20	
Bromobenzene	25.7	5.0	ug/l	25.0	ND	103	70-125	8	20	
Bromochloromethane	22.2	5.0	ug/l	25.0	ND	89	65-135	10	25	
Bromodichloromethane	22.5	2.0	ug/l	25.0	ND	90	70-135	8	20	
Bromoform	19.6	5.0	ug/l	25.0	ND	78	55-135	3	25	
Bromomethane	20.9	5.0	ug/l	25.0	ND	84	55-145	3	25	
n-Butylbenzene	26.3	5.0	ug/l	25.0	ND	105	65-135	9	20	
sec-Butylbenzene	28.9	5.0	ug/l	25.0	1.36	110	70-125	7	20	
tert-Butylbenzene	28.0	5.0	ug/l	25.0	0.370	110	65-130	8	20	
Carbon tetrachloride	25.1	5.0	ug/l	25.0	ND	101	65-140	5	25	
Chlorobenzene	25.1	2.0	ug/l	25.0	ND	100	75-125	6	20	
Chloroethane	22.6	5.0	ug/l	25.0	ND	90	55-140	3	25	
Chloroform	20.6	2.0	ug/l	25.0	ND	83	65-135	9	20	
Chloromethane	20.4	5.0	ug/l	25.0	0.500	79	45-145	4	25	
2-Chlorotoluene	26.0	5.0	ug/l	25.0	4.31	87	65-135	8	20	
4-Chlorotoluene	26.4	5.0	ug/l	25.0	ND	106	70-135	8	20	
1,2-Dibromo-3-chloropropane	24.9	5.0	ug/l	25.0	ND	100	45-145	4	30	
Dibromochloromethane	20.2	2.0	ug/l	25.0	ND	81	65-140	3	25	
1,2-Dibromoethane (EDB)	23.5	2.0	ug/l	25.0	ND	94	70-130	1	25	
Dibromomethane	23.5	2.0	ug/l	25.0	ND	94	65-135	8	25	
1,2-Dichlorobenzene	25.1	2.0	ug/l	25.0	ND	100	75-125	10	20	
1,3-Dichlorobenzene	25.1	2.0	ug/l	25.0	ND	100	75-125	10	20	
1,4-Dichlorobenzene	21.5	2.0	ug/l	25.0	ND	86	75-125	10	20	
Dichlorodifluoromethane	19.5	5.0	ug/l	25.0	ND	78	25-155	2	30	
1,1-Dichloroethane	24.6	2.0	ug/l	25.0	1.05	94	65-130	8	20	
1,2-Dichloroethane	23.1	2.0	ug/l	25.0	ND	92	60-140	4	20	
1,1-Dichloroethene	12.2	5.0	ug/l	25.0	ND	49	60-130	3	20	MI, M2
cis-1,2-Dichloroethene	29.1	2.0	ug/l	25.0	7.57	86	65-130	8	20	
trans-1,2-Dichloroethene	21.2	2.0	ug/l	25.0	ND	85	65-130	8	20	
1,2-Dichloropropane	24.9	2.0	ug/l	25.0	ND	99	65-130	9	20	
1,3-Dichloropropane	24.7	2.0	ug/l	25.0	ND	99	65-135	3	25	
2,2-Dichloropropane	24.3	2.0	ug/l	25.0	ND	97	60-145	4	25	
cis-1,3-Dichloropropene	30.3	2.0	ug/l	25.0	ND	121	70-130	9	20	
trans-1,3-Dichloropropene	23.8	2.0	ug/l	25.0	ND	95	65-135	7	25	
1,1-Dichloropropene	26.7	2.0	ug/l	25.0	ND	107	70-135	2	20	
Ethylbenzene	27.4	2.0	ug/l	25.0	ND	109	65-130	1	20	

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 Attention: Leah Levy

Project ID: Former Cenco Refinery
 B0054205.0001.00001
 Report Number: ISA1546

Sampled: 01/19/09
 Received: 01/19/09

METHOD BLANK/QC DATA**VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A21009 Extracted: 01/21/09</u>										
Matrix Spike Dup Analyzed: 01/21/2009 (9A21009-MSD1)										
Source: ISA1546-06										
1,1,2-Trichloroethane	23.9	5.0	ug/l	25.0	ND	95	60-135	10	20	
1,1,2-Tetrachloroethane	32.1	2.0	ug/l	25.0	5.62	106	70-135	6	20	
1,1,2,2-Tetrachloroethane	25.8	2.0	ug/l	25.0	0.450	101	65-130	9	20	
1,1,2,2-Tetrachloroethene	14.7	5.0	ug/l	25.0	ND	59	50-135	58	20	R
1,1,2-Trichloroethene	29.5	5.0	ug/l	25.0	0.430	116	50-140	4	30	
1,1-Dichloroethane	29.7	2.0	ug/l	25.0	2.76	108	70-135	6	20	
1,1-Dichloroethene	27.3	2.0	ug/l	25.0	ND	109	50-145	7	30	
1,1,1,2-Tetrachloroethane	23.6	5.0	ug/l	25.0	ND	95	65-140	3	20	
1,1,1,2-Tetrachloroethene	28.4	2.0	ug/l	25.0	ND	114	55-135	0	30	
1,1,2,2-Tetrachloroethene	24.8	2.0	ug/l	25.0	ND	99	65-130	1	20	
1,1,2,2-Tetrachloroethane	26.4	2.0	ug/l	25.0	ND	106	70-125	6	20	
1,1,2,2-Tetrachloropropane	25.8	5.0	ug/l	25.0	ND	103	60-135	8	20	
1,1,2,3-Tetrachlorobenzene	25.3	5.0	ug/l	25.0	ND	101	65-135	14	20	
1,1,1,2-Tetrachloroethane	23.8	2.0	ug/l	25.0	ND	95	65-140	6	20	
1,1,1,2-Tetrachloroethene	25.4	2.0	ug/l	25.0	ND	101	65-130	8	25	
1,1,1,2-Tetrachloroethene	24.9	2.0	ug/l	25.0	ND	100	65-125	6	20	
1,1,1,2-Tetrachloroethane	19.4	5.0	ug/l	25.0	ND	78	60-145	1	25	
1,1,1,2-Tetrachloropropane	26.6	10	ug/l	25.0	ND	106	55-135	1	30	
1,1,1,2-Tetrachloropropane	26.9	2.0	ug/l	25.0	ND	108	55-135	5	25	
1,1,1,2-Tetrachloropropane	26.6	2.0	ug/l	25.0	ND	106	70-130	7	20	
1,1,1-Chloroethane	23.3	5.0	ug/l	25.0	1.85	86	45-140	4	30	
1,1,1,2-Tetrachloroethane	55.8	2.0	ug/l	50.0	ND	112	65-130	1	25	
1,1,1,2-Tetrachloroethane	26.4	2.0	ug/l	25.0	ND	106	65-125	3	20	
1,1,1,2-Tetrachloroethane	82.2	4.0	ug/l	75.0	ND	110	60-130	2	20	
1,1,1,2-Tetrachloroethane	24.7	5.0	ug/l	25.0	0.410	97	60-140	9	25	
1,1,1,2-Tetrachloroethane	25.6	5.0	ug/l	25.0	ND	103	60-135	11	25	
1,1,1,2-Tetrachloroethane	25.4	5.0	ug/l	25.0	ND	102	55-145	7	25	
1,1,1,2-Tetrachloroethane	27.2	5.0	ug/l	25.0	0.380	107	60-140	8	30	
1,1,1,2-Tetrachloroethane	182	50	ug/l	125	46.6	108	65-140	18	25	
Surrogate: 4-Bromofluorobenzene	23.7		ug/l	25.0		95	80-120			
Surrogate: Dibromofluoromethane	21.4		ug/l	25.0		86	80-120			
Surrogate: Toluene-d8	25.4		ug/l	25.0		102	80-120			

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Project ID: Former Cenco Refinery
B0054205.0001.00001
Report Number: ISA1546

Sampled: 01/19/09
Received: 01/19/09

METHOD EXECUTIVE DATA

DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20116 Extracted: 01/20/09</u>										
Blank Analyzed: 01/20/2009 (9A20116-BLK1)										
Methane	ND	0.0010	mg/l							
LCS Analyzed: 01/20/2009 (9A20116-BS1)										
Methane	0.0129	0.0010	mg/l	0.0136		95	80-120			
LCS Dup Analyzed: 01/20/2009 (9A20116-BSD1)										
Methane	0.0125	0.0010	mg/l	0.0136		92	80-120	3	25	

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METHOD/BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A19077 Extracted: 01/19/09</u>										
Blank Analyzed: 01/19/2009 (9A19077-BLK1)										
Chromium VI										
Chromium VI	ND	0.0020	mg/l							
LCS Analyzed: 01/19/2009 (9A19077-BS1)										
Chromium VI	0.0490	0.0020	mg/l	0.0500		98	90-110			
Matrix Spike Analyzed: 01/19/2009 (9A19077-MS1)										
Chromium VI	0.0503	0.0020	mg/l	0.0500	ND	101	85-115			
Matrix Spike Dup Analyzed: 01/19/2009 (9A19077-MSD1)										
Chromium VI	0.0503	0.0020	mg/l	0.0500	ND	101	85-115	0	20	
<u>Batch: 9A19108 Extracted: 01/19/09</u>										
Blank Analyzed: 01/19/2009 (9A19108-BLK1)										
Nitrate-N	ND	0.11	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 01/19/2009 (9A19108-BS1)										
Nitrate-N	1.20	0.11	mg/l	1.13		106	90-110			
Sulfate	10.2	0.50	mg/l	10.0		102	90-110			
Matrix Spike Analyzed: 01/19/2009 (9A19108-MS1)										
Nitrate-N	23.1	2.2	mg/l	11.3	12.6	93	80-120			
Sulfate	339	10	mg/l	100	247	91	80-120			
Matrix Spike Analyzed: 01/19/2009 (9A19108-MS2)										
Nitrate-N	16.0	2.2	mg/l	11.3	5.73	91	80-120			
Sulfate	202	10	mg/l	100	116	85	80-120			

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Sampled: 01/19/09
Received: 01/19/09

METHOD/BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A19108 Extracted: 01/19/09</u>										
Matrix Spike Dup Analyzed: 01/19/2009 (9A19108-MSD1)										
Source: ISA1523-01										
Nitrate-N	23.1	2.2	mg/l	11.3	12.6	93	80-120	0	20	
Sulfate	328	10	mg/l	100	247	80	80-120	3	20	
<u>Batch: 9A20115 Extracted: 01/20/09</u>										
Blank Analyzed: 01/20/2009 (9A20115-BLK1)										
Ferrous Iron	ND	0.10	mg/l							
LCS Analyzed: 01/20/2009 (9A20115-BS1)										
Ferrous Iron	5.00	0.10	mg/l	5.00		100	80-120			
Duplicate Analyzed: 01/20/2009 (9A20115-DUP1)										
Ferrous Iron	ND	0.10	mg/l		ND			20		HFT
<u>Batch: 9A26083 Extracted: 01/26/09</u>										
Blank Analyzed: 01/26/2009 (9A26083-BLK1)										
Alkalinity as CaCO ₃	ND	2.0	mg/l							
Duplicate Analyzed: 01/26/2009 (9A26083-DUP1)										
Alkalinity as CaCO ₃	318	2.0	mg/l		316			1	20	
Reference Analyzed: 01/26/2009 (9A26083-SRM1)										
Alkalinity as CaCO ₃	224	2.0	mg/l	223		100	90-110			

TestAmerica Irvine
Sushmitha Reddy
Project Manager

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DATA QUALIFIERS AND DEFINITIONS

HFT	The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
QP1	Hydrocarbon result partly due to individual peak(s) in quantitation range.
R	The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.
Z2	Surrogate recovery was above the acceptance limits. Data not impacted.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

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Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 300.0	Water	X	X
EPA 7199	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8260B	Water	X	X
RSK-175 MOD.	Water	N/A	N/A
SM 3500-Fe D	Water		
SM2320B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Irvine

Sushmitha Reddy
Project Manager

LABORATORY REPORT

Prepared For: Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project: Former Cenco Refinery
B0052405.0001

Sampled: 01/20/09
Received: 01/20/09
Revised: 02/03/09 14:45

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE**ADDITIONAL**

INFORMATION: As per client's request, the report reissued with revised ID for the duplicate sample.
Amended to add J flags.

LABORATORY ID	CLIENT ID	MATRIX
ISA1658-01	W-1_0109	Water
ISA1658-02	W-1_0109-D	Water
ISA1658-03	W-12_0109	Water
ISA1658-04	MW-201_0109	Water
ISA1658-05	TB012009	Water

Reviewed By:



Test America Irvine

Srinitha Reddy
Object Manager

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Attention: Leah Levy

Project ID: Former Cenoco Refinery
B0052405.0001
Report Number: ISA1658
Sampled: 01/20/09
Received: 01/20/09

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-01 (W-1_0109 - Water)									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A23033	50	25	230	1	1/23/2009	1/23/2009	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1658-02 (W-1_0109-D - Water)									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A23033	50	25	220	1	1/23/2009	1/23/2009	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1658-03 (W-12_0109 - Water)									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A23033	50	25	620	1	1/23/2009	1/23/2009	ZX
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1658-04 (MW-201_0109 - Water)									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A23033	50	25	1400	1	1/23/2009	1/23/2009	ZX
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									

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Sampled: 01/20/09
Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-01 (W-1_0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A22018	2.0	0.28	15	1	1/22/2009	1/22/2009	
Bromobenzene	EPA 8260B	9A22018	5.0	0.27	ND	1	1/22/2009	1/22/2009	
Bromoform	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Bromomethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
1-Butylbenzene	EPA 8260B	9A22018	5.0	0.37	ND	1	1/22/2009	1/22/2009	
sec-Butylbenzene	EPA 8260B	9A22018	5.0	0.25	0.74	1	1/22/2009	1/22/2009	J
tert-Butylbenzene	EPA 8260B	9A22018	5.0	0.22	0.52	1	1/22/2009	1/22/2009	J
Carbon tetrachloride	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
Chlorobenzene	EPA 8260B	9A22018	2.0	0.36	0.37	1	1/22/2009	1/22/2009	J
Chloroethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
Chloroform	EPA 8260B	9A22018	2.0	0.33	ND	1	1/22/2009	1/22/2009	
Chromethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
1-Chlorotoluene	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
1-Chlorotoluene	EPA 8260B	9A22018	5.0	0.29	ND	1	1/22/2009	1/22/2009	
1,2-Dibromo-3-chloropropane	EPA 8260B	9A22018	5.0	0.97	ND	1	1/22/2009	1/22/2009	
Dibromochloromethane	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
,2-Dibromoethane (EDB)	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
Dichromomethane	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
,2-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
,3-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.35	ND	1	1/22/2009	1/22/2009	
,4-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.37	0.58	1	1/22/2009	1/22/2009	J
Difluorodifluoromethane	EPA 8260B	9A22018	5.0	0.26	ND	1	1/22/2009	1/22/2009	
,1-Dichloroethane	EPA 8260B	9A22018	2.0	0.40	0.58	1	1/22/2009	1/22/2009	J
,2-Dichloroethane	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
,1-Dichloroethene	EPA 8260B	9A22018	5.0	0.42	ND	1	1/22/2009	1/22/2009	
is-1,2-Dichloroethene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A22018	2.0	0.30	0.87	1	1/22/2009	1/22/2009	J
,2-Dichloropropane	EPA 8260B	9A22018	2.0	0.35	ND	1	1/22/2009	1/22/2009	
,3-Dichloropropane	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
,2-Dichloropropane	EPA 8260B	9A22018	2.0	0.34	ND	1	1/22/2009	1/22/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A22018	2.0	0.22	ND	1	1/22/2009	1/22/2009	
cis-1,3-Dichloropropene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
1-Dichloropropene	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
trans-1,4-Dichloroethene	EPA 8260B	9A22018	2.0	0.25	ND	1	1/22/2009	1/22/2009	
,1,1-Dichlorobutadiene	EPA 8260B	9A22018	5.0	0.38	ND	1	1/22/2009	1/22/2009	
Isopropylbenzene	EPA 8260B	9A22018	2.0	0.25	3.6	1	1/22/2009	1/22/2009	
Isopropyltoluene	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
Chloroethylene chloride	EPA 8260B	9A22018	5.0	0.95	ND	1	1/22/2009	1/22/2009	
alpha-Pinene	EPA 8260B	9A22018	5.0	0.41	ND	1	1/22/2009	1/22/2009	

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Srinitha Reddy
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Project ID: Former Cenoco Refinery
B0052405.0001
Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-01 (W-1_0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A22018	2.0	0.27	1.8	1	1/22/2009	1/22/2009	J
Styrene	EPA 8260B	9A22018	2.0	0.20	ND	1	1/22/2009	1/22/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A22018	5.0	0.27	ND	1	1/22/2009	1/22/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Tetrachloroethene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
Toluene	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A22018	5.0	0.30	ND	1	1/22/2009	1/22/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A22018	5.0	0.48	ND	1	1/22/2009	1/22/2009	
1,1,1-Trichloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
1,1,2-Trichloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Trichloroethene	EPA 8260B	9A22018	2.0	0.26	ND	1	1/22/2009	1/22/2009	
Trichlorofluoromethane	EPA 8260B	9A22018	5.0	0.34	ND	1	1/22/2009	1/22/2009	
1,2,3-Trichloroproppane	EPA 8260B	9A22018	10	0.40	ND	1	1/22/2009	1/22/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A22018	2.0	0.23	ND	1	1/22/2009	1/22/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A22018	2.0	0.26	ND	1	1/22/2009	1/22/2009	
Vinyl chloride	EPA 8260B	9A22018	5.0	0.40	2.8	1	1/22/2009	1/22/2009	J
m,p-Xylenes	EPA 8260B	9A22018	2.0	0.60	ND	1	1/22/2009	1/22/2009	
o-Xylene	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Xylenes, Total	EPA 8260B	9A22018	4.0	0.90	ND	1	1/22/2009	1/22/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A22018	5.0	0.25	0.41	1	1/22/2009	1/22/2009	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A22018	5.0	0.32	3.1	1	1/22/2009	1/22/2009	J
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A22018	5.0	0.33	ND	1	1/22/2009	1/22/2009	
tert-Butanol (TBA)	EPA 8260B	9A22018	50	6.5	23	1	1/22/2009	1/22/2009	J
Surrogate: 4-Bromofluorobenzene (80-120%)									
Surrogate: Dibromofluoromethane (80-120%)									
Surrogate: Toluene-d8 (80-120%)									
106 %									
101 %									
99 %									

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B0052405.0001
Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-02 (W-1_0109-D - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A22018	2.0	0.28	19	1	1/22/2009	1/22/2009	
Bromobenzene	EPA 8260B	9A22018	5.0	0.27	ND	1	1/22/2009	1/22/2009	
Bromoform	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
Bromomethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Bromoform	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
Bromomethane	EPA 8260B	9A22018	5.0	0.42	ND	1	1/22/2009	1/22/2009	
n-Butylbenzene	EPA 8260B	9A22018	5.0	0.37	ND	1	1/22/2009	1/22/2009	
sec-Butylbenzene	EPA 8260B	9A22018	5.0	0.25	1.1	1	1/22/2009	1/22/2009	J
tert-Butylbenzene	EPA 8260B	9A22018	5.0	0.22	0.76	1	1/22/2009	1/22/2009	J
Carbon tetrachloride	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
Chlorobenzene	EPA 8260B	9A22018	2.0	0.36	0.49	1	1/22/2009	1/22/2009	J
Chloroethane	EPA 8260B	9A22018	5.0	0.40	0.54	1	1/22/2009	1/22/2009	J
Chloroform	EPA 8260B	9A22018	2.0	0.33	ND	1	1/22/2009	1/22/2009	
Chloromethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
1-Chlorotoluene	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
1-Chlorotoluene	EPA 8260B	9A22018	5.0	0.29	ND	1	1/22/2009	1/22/2009	
1,1-Dibromo-3-chloropropane	EPA 8260B	9A22018	5.0	0.97	ND	1	1/22/2009	1/22/2009	
Dibromochloromethane	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
,2-Dibromoethane (EDB)	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
Dibromomethane	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
,2-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
,3-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.35	ND	1	1/22/2009	1/22/2009	
,4-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.37	0.81	1	1/22/2009	1/22/2009	J
1,1-Difluorodifluoromethane	EPA 8260B	9A22018	5.0	0.26	ND	1	1/22/2009	1/22/2009	
,1-Dichloroethane	EPA 8260B	9A22018	2.0	0.40	0.61	1	1/22/2009	1/22/2009	J
,2-Dichloroethane	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
,1-Dichloroethene	EPA 8260B	9A22018	5.0	0.42	ND	1	1/22/2009	1/22/2009	
,s-1,2-Dichloroethene	EPA 8260B	9A22018	2.0	0.32	0.40	1	1/22/2009	1/22/2009	J
trans-1,2-Dichloroethene	EPA 8260B	9A22018	2.0	0.30	1.1	1	1/22/2009	1/22/2009	J
1,1-Dichloropropane	EPA 8260B	9A22018	2.0	0.35	ND	1	1/22/2009	1/22/2009	
3,3-Dichloropropane	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
2,2-Dichloropropane	EPA 8260B	9A22018	2.0	0.34	ND	1	1/22/2009	1/22/2009	
s-3-Dichloropropene	EPA 8260B	9A22018	2.0	0.22	ND	1	1/22/2009	1/22/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
1-Dichloropropene	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
1,1-Difluoroethylene	EPA 8260B	9A22018	2.0	0.25	ND	1	1/22/2009	1/22/2009	
1,1-Chlorobutadiene	EPA 8260B	9A22018	5.0	0.38	ND	1	1/22/2009	1/22/2009	
Propylbenzene	EPA 8260B	9A22018	2.0	0.25	4.8	1	1/22/2009	1/22/2009	
Isopropyltoluene	EPA 8260B	9A22018	2.0	0.28	1.3	1	1/22/2009	1/22/2009	J
Ethylene chloride	EPA 8260B	9A22018	5.0	0.95	ND	1	1/22/2009	1/22/2009	
Phthalene	EPA 8260B	9A22018	5.0	0.41	ND	1	1/22/2009	1/22/2009	

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Project ID: Former Cenoco Refinery
 B0052405.0001
 Report Number: ISA1658

Sampled: 01/20/09
 Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Reporting Batch	Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-02 (W-1_0109-D - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A22018	2.0	0.27	2.5	1	1/22/2009	1/22/2009	
Styrene	EPA 8260B	9A22018	2.0	0.20	ND	1	1/22/2009	1/22/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A22018	5.0	0.27	ND	1	1/22/2009	1/22/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Tetrachloroethene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
Toluene	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A22018	5.0	0.30	ND	1	1/22/2009	1/22/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A22018	5.0	0.48	ND	1	1/22/2009	1/22/2009	
1,1,1-Trichloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
1,1,2-Trichloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Trichloroethene	EPA 8260B	9A22018	2.0	0.26	ND	1	1/22/2009	1/22/2009	
Trichlorofluoromethane	EPA 8260B	9A22018	5.0	0.34	ND	1	1/22/2009	1/22/2009	
1,2,3-Trichloropropane	EPA 8260B	9A22018	10	0.40	ND	1	1/22/2009	1/22/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A22018	2.0	0.23	ND	1	1/22/2009	1/22/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A22018	2.0	0.26	ND	1	1/22/2009	1/22/2009	
Vinyl chloride	EPA 8260B	9A22018	5.0	0.40	3.7	1	1/22/2009	1/22/2009	J
m,p-Xylenes	EPA 8260B	9A22018	2.0	0.60	ND	1	1/22/2009	1/22/2009	
o-Xylene	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Xylenes, Total	EPA 8260B	9A22018	4.0	0.90	ND	1	1/22/2009	1/22/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A22018	5.0	0.25	0.49	1	1/22/2009	1/22/2009	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A22018	5.0	0.32	3.9	1	1/22/2009	1/22/2009	J
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A22018	5.0	0.33	ND	1	1/22/2009	1/22/2009	
tert-Butanol (TBA)	EPA 8260B	9A22018	50	6.5	35	1	1/22/2009	1/22/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
95 %									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
94 %									
<i>Surrogate: Toluene-d8 (80-120%)</i>									
101 %									

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B0052405.0001

Sampled: 01/20/09

Report Number: ISA1658

Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-03 (W-12_0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
Bromobenzene	EPA 8260B	9A22018	5.0	0.27	ND	1	1/22/2009	1/22/2009	
Bromoform	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
Bromomethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Bromoform	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
o-Butylbenzene	EPA 8260B	9A22018	5.0	0.37	1.9	1	1/22/2009	1/22/2009	J
sec-Butylbenzene	EPA 8260B	9A22018	5.0	0.25	1.4	1	1/22/2009	1/22/2009	J
tert-Butylbenzene	EPA 8260B	9A22018	5.0	0.22	ND	1	1/22/2009	1/22/2009	
Carbon tetrachloride	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
Chlorobenzene	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
Chloroethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
Chloroform	EPA 8260B	9A22018	2.0	0.33	ND	1	1/22/2009	1/22/2009	
Chromane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
1-Chlorotoluene	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
-Chlorotoluene	EPA 8260B	9A22018	5.0	0.29	ND	1	1/22/2009	1/22/2009	
,1-Dibromo-3-chloropropane	EPA 8260B	9A22018	5.0	0.97	ND	1	1/22/2009	1/22/2009	
Dibromochloromethane	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
,2-Dibromoethane (EDB)	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
Dimethylmethane	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
,2-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
,3-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.35	ND	1	1/22/2009	1/22/2009	
,4-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.37	ND	1	1/22/2009	1/22/2009	
Fluorodifluoromethane	EPA 8260B	9A22018	5.0	0.26	ND	1	1/22/2009	1/22/2009	
,1-Dichloroethane	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
,2-Dichloroethane	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
,1-Dichloroethene	EPA 8260B	9A22018	5.0	0.42	ND	1	1/22/2009	1/22/2009	
s-,t,-Dichloroethene	EPA 8260B	9A22018	2.0	0.32	5.4	1	1/22/2009	1/22/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A22018	2.0	0.30	0.48	1	1/22/2009	1/22/2009	J
1,1-Dichloropropane	EPA 8260B	9A22018	2.0	0.35	ND	1	1/22/2009	1/22/2009	
3,3-Dichloropropane	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
2-Dichloropropane	EPA 8260B	9A22018	2.0	0.34	ND	1	1/22/2009	1/22/2009	
s-,t,-3-Dichloropropene	EPA 8260B	9A22018	2.0	0.22	ND	1	1/22/2009	1/22/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
1-Dichloropropene	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
Hydrobenzene	EPA 8260B	9A22018	2.0	0.25	0.69	1	1/22/2009	1/22/2009	J
Chlorobutadiene	EPA 8260B	9A22018	5.0	0.38	ND	1	1/22/2009	1/22/2009	
Propylbenzene	EPA 8260B	9A22018	2.0	0.25	1.0	1	1/22/2009	1/22/2009	J
Isopropyltoluene	EPA 8260B	9A22018	2.0	0.28	0.94	1	1/22/2009	1/22/2009	J
ethylene chloride	EPA 8260B	9A22018	5.0	0.95	ND	1	1/22/2009	1/22/2009	
propylene	EPA 8260B	9A22018	5.0	0.41	ND	1	1/22/2009	1/22/2009	

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 Report Number: ISA1658

Sampled: 01/20/09
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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-03 (W-12_0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A22018	2.0	0.27	1.2	1	1/22/2009	1/22/2009	J
Styrene	EPA 8260B	9A22018	2.0	0.20	ND	1	1/22/2009	1/22/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A22018	5.0	0.27	ND	1	1/22/2009	1/22/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Tetrachloroethene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
Toluene	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A22018	5.0	0.30	ND	1	1/22/2009	1/22/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A22018	5.0	0.48	ND	1	1/22/2009	1/22/2009	
1,1,1-Trichloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
1,1,2-Trichloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Trichloroethene	EPA 8260B	9A22018	2.0	0.26	ND	1	1/22/2009	1/22/2009	
Trichlorofluoromethane	EPA 8260B	9A22018	5.0	0.34	ND	1	1/22/2009	1/22/2009	
1,2,3-Trichloropropane	EPA 8260B	9A22018	10	0.40	ND	1	1/22/2009	1/22/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A22018	2.0	0.23	ND	1	1/22/2009	1/22/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A22018	2.0	0.26	ND	1	1/22/2009	1/22/2009	
Vinyl chloride	EPA 8260B	9A22018	5.0	0.40	2.4	1	1/22/2009	1/22/2009	J
n,p-Xylenes	EPA 8260B	9A22018	2.0	0.60	ND	1	1/22/2009	1/22/2009	
o-Xylene	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Kylenes, Total	EPA 8260B	9A22018	4.0	0.90	ND	1	1/22/2009	1/22/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A22018	5.0	0.25	0.28	1	1/22/2009	1/22/2009	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A22018	5.0	0.32	ND	1	1/22/2009	1/22/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A22018	5.0	0.33	ND	1	1/22/2009	1/22/2009	
tert-Butanol (TBA)	EPA 8260B	9A22018	50	6.5	32	1	1/22/2009	1/22/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
<i>Surrogate: Toluene-d8 (80-120%)</i>									
100 %									
94 %									
100 %									

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Project ID: Former Cenco Refinery
B0052405.0001
Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-04 (MW-201_0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A22018	2.0	0.28	97	1	1/22/2009	1/22/2009	
Bromobenzene	EPA 8260B	9A22018	5.0	0.27	ND	1	1/22/2009	1/22/2009	
1,1-Dimethylchloromethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
1,1-Dichlorodimethylmethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Bromoform	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
Bromomethane	EPA 8260B	9A22018	5.0	0.42	ND	1	1/22/2009	1/22/2009	
n-Butylbenzene	EPA 8260B	9A22018	5.0	0.37	1.6	1	1/22/2009	1/22/2009	J
sec-Butylbenzene	EPA 8260B	9A22018	5.0	0.25	1.6	1	1/22/2009	1/22/2009	J
tert-Butylbenzene	EPA 8260B	9A22018	5.0	0.22	0.23	1	1/22/2009	1/22/2009	J
Carbon tetrachloride	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
Chlorobenzene	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
Chloroethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
Chloroform	EPA 8260B	9A22018	2.0	0.33	ND	1	1/22/2009	1/22/2009	
Chloromethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
1-Chlorotoluene	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
1,1-Chlorotoluene	EPA 8260B	9A22018	5.0	0.29	ND	1	1/22/2009	1/22/2009	
1,1-Dibromo-3-chloropropane	EPA 8260B	9A22018	5.0	0.97	ND	1	1/22/2009	1/22/2009	
Dibromochloromethane	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
Dichloromethane	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
,2-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
,3-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.35	ND	1	1/22/2009	1/22/2009	
,4-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.37	ND	1	1/22/2009	1/22/2009	
Difluorodifluoromethane	EPA 8260B	9A22018	5.0	0.26	ND	1	1/22/2009	1/22/2009	
,1-Dichloroethane	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
,2-Dichloroethane	EPA 8260B	9A22018	2.0	0.28	2.1	1	1/22/2009	1/22/2009	
,1-Dichloroethene	EPA 8260B	9A22018	5.0	0.42	0.73	1	1/22/2009	1/22/2009	J
trans-1,2-Dichloroethene	EPA 8260B	9A22018	2.0	0.32	16	1	1/22/2009	1/22/2009	
EPA 8260B	9A22018	2.0	0.30	0.60		1	1/22/2009	1/22/2009	J
,2-Dichloropropane	EPA 8260B	9A22018	2.0	0.35	ND	1	1/22/2009	1/22/2009	
,3-Dichloropropane	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
,2-Dichloropropane	EPA 8260B	9A22018	2.0	0.34	ND	1	1/22/2009	1/22/2009	
is-1,3-Dichloropropene	EPA 8260B	9A22018	2.0	0.22	ND	1	1/22/2009	1/22/2009	
anti-1,3-Dichloropropene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
,1-Dichloropropene	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
toluene	EPA 8260B	9A22018	2.0	0.25	17	1	1/22/2009	1/22/2009	
chlorobutadiene	EPA 8260B	9A22018	5.0	0.38	ND	1	1/22/2009	1/22/2009	
Isopropylbenzene	EPA 8260B	9A22018	2.0	0.25	5.8	1	1/22/2009	1/22/2009	
-Isopropyltoluene	EPA 8260B	9A22018	2.0	0.28	2.4	1	1/22/2009	1/22/2009	
ethylene chloride	EPA 8260B	9A22018	5.0	0.95	ND	1	1/22/2009	1/22/2009	
aphthalene	EPA 8260B	9A22018	5.0	0.41	ND	1	1/22/2009	1/22/2009	

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 B0052405.0001
 Report Number: ISA1658

Sampled: 01/20/09
 Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-04 (MW-201_0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A22018	2.0	0.27	5.3	1	1/22/2009	1/22/2009	
Styrene	EPA 8260B	9A22018	2.0	0.20	ND	1	1/22/2009	1/22/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A22018	5.0	0.27	ND	1	1/22/2009	1/22/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Tetrachloroethene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
Toluene	EPA 8260B	9A22018	2.0	0.36	3.9	1	1/22/2009	1/22/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A22018	5.0	0.30	ND	1	1/22/2009	1/22/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A22018	5.0	0.48	ND	1	1/22/2009	1/22/2009	
1,1,1-Trichloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
1,1,2-Trichloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Trichloroethene	EPA 8260B	9A22018	2.0	0.26	ND	1	1/22/2009	1/22/2009	
Trichlorofluoromethane	EPA 8260B	9A22018	5.0	0.34	ND	1	1/22/2009	1/22/2009	
1,2,3-Trichloropropane	EPA 8260B	9A22018	10	0.40	ND	1	1/22/2009	1/22/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A22018	2.0	0.23	2.4	1	1/22/2009	1/22/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A22018	2.0	0.26	1.7	1	1/22/2009	1/22/2009	J
Vinyl chloride	EPA 8260B	9A22018	5.0	0.40	1.6	1	1/22/2009	1/22/2009	J
m,p-Xylenes	EPA 8260B	9A22018	2.0	0.60	19	1	1/22/2009	1/22/2009	
o-Xylene	EPA 8260B	9A22018	2.0	0.30	1.0	1	1/22/2009	1/22/2009	J
Xylenes, Total	EPA 8260B	9A22018	4.0	0.90	20	1	1/22/2009	1/22/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A22018	5.0	0.25	ND	1	1/22/2009	1/22/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A22018	5.0	0.32	ND	1	1/22/2009	1/22/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A22018	5.0	0.33	ND	1	1/22/2009	1/22/2009	
tert-Butanol (TBA)	EPA 8260B	9A22018	50	6.5	44	1	1/22/2009	1/22/2009	J
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>							98 %		
<i>Surrogate: Dibromofluoromethane (80-120%)</i>							92 %		
<i>Surrogate: Toluene-d8 (80-120%)</i>							99 %		

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B0052405.0001
Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-05 (TB012009 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
Bromobenzene	EPA 8260B	9A22018	5.0	0.27	ND	1	1/22/2009	1/22/2009	
1,1-Dichloromethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
1,1-Dimodichloromethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Bromoform	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
Br. momethane	EPA 8260B	9A22018	5.0	0.42	ND	1	1/22/2009	1/22/2009	
1-Butylbenzene	EPA 8260B	9A22018	5.0	0.37	ND	1	1/22/2009	1/22/2009	
sec-Butylbenzene	EPA 8260B	9A22018	5.0	0.25	ND	1	1/22/2009	1/22/2009	
tert-Butylbenzene	EPA 8260B	9A22018	5.0	0.22	ND	1	1/22/2009	1/22/2009	
Carbon tetrachloride	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
Chlorobenzene	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
Chloroethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
Chloroform	EPA 8260B	9A22018	2.0	0.33	ND	1	1/22/2009	1/22/2009	
Chloromethane	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
1-Chlorotoluene	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
-Chlorotoluene	EPA 8260B	9A22018	5.0	0.29	ND	1	1/22/2009	1/22/2009	
,2-Dibromo-3-chloropropane	EPA 8260B	9A22018	5.0	0.97	ND	1	1/22/2009	1/22/2009	
Dibromochloromethane	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
,2-Dibromoethane (EDB)	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
Dibromomethane	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
,2-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
,3-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.35	ND	1	1/22/2009	1/22/2009	
,4-Dichlorobenzene	EPA 8260B	9A22018	2.0	0.37	ND	1	1/22/2009	1/22/2009	
1,1-Difluorodifluoromethane	EPA 8260B	9A22018	5.0	0.26	ND	1	1/22/2009	1/22/2009	
,1-Dichloroethane	EPA 8260B	9A22018	2.0	0.40	ND	1	1/22/2009	1/22/2009	
,2-Dichloroethane	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
,1-Dichloroethene	EPA 8260B	9A22018	5.0	0.42	ND	1	1/22/2009	1/22/2009	
s-1,2-Dichloroethene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
ans-1,2-Dichloroethene	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
2-Chloropropane	EPA 8260B	9A22018	2.0	0.35	ND	1	1/22/2009	1/22/2009	
3-Chloropropane	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
2-Dichloropropane	EPA 8260B	9A22018	2.0	0.34	ND	1	1/22/2009	1/22/2009	
s-3-Dichloropropene	EPA 8260B	9A22018	2.0	0.22	ND	1	1/22/2009	1/22/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
1-Dichloropropene	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
h. benzene	EPA 8260B	9A22018	2.0	0.25	ND	1	1/22/2009	1/22/2009	
chlorobutadiene	EPA 8260B	9A22018	5.0	0.38	ND	1	1/22/2009	1/22/2009	
propylbenzene	EPA 8260B	9A22018	2.0	0.25	ND	1	1/22/2009	1/22/2009	
Isononylbenzene	EPA 8260B	9A22018	2.0	0.28	ND	1	1/22/2009	1/22/2009	
ethylene chloride	EPA 8260B	9A22018	5.0	0.95	ND	1	1/22/2009	1/22/2009	
ipnthalene	EPA 8260B	9A22018	5.0	0.41	ND	1	1/22/2009	1/22/2009	

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Project ID: Former Cenco Refinery
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 Report Number: ISA1658

Sampled: 01/20/09
 Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-05 (TB012009 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A22018	2.0	0.27	ND	1	1/22/2009	1/22/2009	
Styrene	EPA 8260B	9A22018	2.0	0.20	ND	1	1/22/2009	1/22/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A22018	5.0	0.27	ND	1	1/22/2009	1/22/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Tetrachloroethene	EPA 8260B	9A22018	2.0	0.32	ND	1	1/22/2009	1/22/2009	
Toluene	EPA 8260B	9A22018	2.0	0.36	ND	1	1/22/2009	1/22/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A22018	5.0	0.30	ND	1	1/22/2009	1/22/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A22018	5.0	0.48	ND	1	1/22/2009	1/22/2009	
1,1,1-Trichloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
1,1,2-Trichloroethane	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Trichloroethene	EPA 8260B	9A22018	2.0	0.26	ND	1	1/22/2009	1/22/2009	
Trichlorofluoromethane	EPA 8260B	9A22018	5.0	0.34	ND	1	1/22/2009	1/22/2009	
1,2,3-Trichloropropane	EPA 8260B	9A22018	10	0.40	ND	1	1/22/2009	1/22/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A22018	2.0	0.23	ND	1	1/22/2009	1/22/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A22018	2.0	0.26	ND	1	1/22/2009	1/22/2009	
Vinyl chloride	EPA 8260B	9A22018	5.0	0.40	ND	1	1/22/2009	1/22/2009	
m,p-Xylenes	EPA 8260B	9A22018	2.0	0.60	ND	1	1/22/2009	1/22/2009	
o-Xylene	EPA 8260B	9A22018	2.0	0.30	ND	1	1/22/2009	1/22/2009	
Xylenes, Total	EPA 8260B	9A22018	4.0	0.90	ND	1	1/22/2009	1/22/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A22018	5.0	0.25	ND	1	1/22/2009	1/22/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A22018	5.0	0.28	ND	1	1/22/2009	1/22/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A22018	5.0	0.32	ND	1	1/22/2009	1/22/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A22018	5.0	0.33	ND	1	1/22/2009	1/22/2009	
tert-Butanol (TBA)	EPA 8260B	9A22018	50	6.5	ND	1	1/22/2009	1/22/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
<i>Surrogate: Toluene-d8 (80-120%)</i>									
98 %									
96 %									
98 %									

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B0052405.0001
Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09

INORGANICS

Analyte	Method	Reporting Batch	Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1658-01 (W-1_0109 - Water)									
Chromium VI	EPA 7199	9A20101	0.0020	0.00025	ND	1	1/20/2009	1/20/2009	Reporting Units: mg/l
Sample ID: ISA1658-02 (W-1_0109-D - Water)									
Chromium VI	EPA 7199	9A20101	0.0020	0.00025	ND	1	1/20/2009	1/20/2009	Reporting Units: mg/l
Sample ID: ISA1658-03 (W-12_0109 - Water)									
Chromium VI	EPA 7199	9A20101	0.0020	0.00025	ND	1	1/20/2009	1/20/2009	Reporting Units: mg/l
Sample ID: ISA1658-04 (MW-201_0109 - Water)									
Chromium VI	EPA 7199	9A20101	0.0020	0.00025	ND	1	1/20/2009	1/20/2009	Reporting Units: mg/l

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B0052405.0001
Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: W-1_0109 (ISA1658-01) - Water EPA 7199	1	01/20/2009 08:05	01/20/2009 17:55	01/20/2009 20:30	01/20/2009 20:37
Sample ID: W-1_0109-D (ISA1658-02) - Water EPA 7199	1	01/20/2009 08:05	01/20/2009 17:55	01/20/2009 20:30	01/20/2009 20:48
Sample ID: W-12_0109 (ISA1658-03) - Water EPA 7199	1	01/20/2009 12:20	01/20/2009 17:55	01/20/2009 20:30	01/20/2009 20:58
Sample ID: MW-201_0109 (ISA1658-04) - Water EPA 7199	1	01/20/2009 13:20	01/20/2009 17:55	01/20/2009 20:30	01/20/2009 21:09

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VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23033 Extracted: 01/23/09</u>										
Blank Analyzed: 01/23/2009 (9A23033-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	ug/l							
Surrogate: 4-BFB (FID)	11.2		ug/l	10.0		112	65-140			
LCS Analyzed: 01/23/2009 (9A23033-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	884	50	ug/l	800		110	80-120			
Surrogate: 4-BFB (FID)	15.3		ug/l	10.0		153	65-140			22
Matrix Spike Analyzed: 01/23/2009 (9A23033-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)	294	50	ug/l	220	ND	134	65-140			
Surrogate: 4-BFB (FID)	13.1		ug/l	10.0		131	65-140			
Matrix Spike Dup Analyzed: 01/23/2009 (9A23033-MSD1)										
Volatile Fuel Hydrocarbons (C6-C12)	277	50	ug/l	220	ND	126	65-140	6	20	
Surrogate: 4-BFB (FID)	11.8		ug/l	10.0		118	65-140			

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A22018 Extracted: 01/22/09</u>										
Blank Analyzed: 01/22/2009 (9A22018-BLK1)										
Benzene	ND	2.0	ug/l							
Bromobenzene	ND	5.0	ug/l							
Bromochloromethane	ND	5.0	ug/l							
Bromodichloromethane	ND	2.0	ug/l							
Bromoform	ND	5.0	ug/l							
Bromomethane	ND	5.0	ug/l							
n-Butylbenzene	ND	5.0	ug/l							
sec-Butylbenzene	ND	5.0	ug/l							
tert-Butylbenzene	ND	5.0	ug/l							
Carbon tetrachloride	ND	5.0	ug/l							
Chlorobenzene	ND	2.0	ug/l							
Chloroethane	ND	5.0	ug/l							
Chloroform	ND	2.0	ug/l							
Chloromethane	ND	5.0	ug/l							
1-Chlorotoluene	ND	5.0	ug/l							
1-Chlorotoluene	ND	5.0	ug/l							
,2-Dibromo-3-chloropropane	ND	5.0	ug/l							
Dibromochloromethane	ND	2.0	ug/l							
,2-Dibromoethane (EDB)	ND	2.0	ug/l							
Dibromomethane	ND	2.0	ug/l							
,2-Dichlorobenzene	ND	2.0	ug/l							
,3-Dichlorobenzene	ND	2.0	ug/l							
,4-Dichlorobenzene	ND	2.0	ug/l							
Dichlorodifluoromethane	ND	5.0	ug/l							
,1-Dichloroethane	ND	2.0	ug/l							
,2-Dichloroethane	ND	2.0	ug/l							
,1-Dichloroethene	ND	5.0	ug/l							
is-1,2-Dichloroethene	ND	2.0	ug/l							
ans-1,2-Dichloroethene	ND	2.0	ug/l							
,2-Dichloropropane	ND	2.0	ug/l							
,3-Dichloropropane	ND	2.0	ug/l							
,2-Dichloropropane	ND	2.0	ug/l							
s-1,3-Dichloropropene	ND	2.0	ug/l							
ans-1,3-Dichloropropene	ND	2.0	ug/l							
1-Dichloropropene	ND	2.0	ug/l							
Phylbenzene	ND	2.0	ug/l							

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

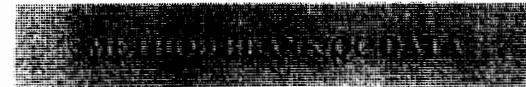
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A22018 Extracted: 01/22/09</u>										
Blank Analyzed: 01/22/2009 (9A22018-BLK1)										
1,1-Chlorobutadiene	ND	5.0	ug/l							
Isopropylbenzene	ND	2.0	ug/l							
o-Isopropyltoluene	ND	2.0	ug/l							
Methylene chloride	ND	5.0	ug/l							
o-Xthalene	ND	5.0	ug/l							
1-Propylbenzene	ND	2.0	ug/l							
Styrene	ND	2.0	ug/l							
1,2-Tetrachloroethane	ND	5.0	ug/l							
1,2-Tetrachloroethane	ND	2.0	ug/l							
Trichloroethylene	ND	2.0	ug/l							
o-xene	ND	2.0	ug/l							
1,2-Trichlorobenzene	ND	5.0	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	ug/l							
1,1,1-Trichloroethane	ND	2.0	ug/l							
1,1-Trichloroethane	ND	2.0	ug/l							
Trichloroethene	ND	2.0	ug/l							
Trichlorofluoromethane	ND	5.0	ug/l							
1,2-Trichloropropane	ND	10	ug/l							
2,2-Trimethylbenzene	ND	2.0	ug/l							
3,5-Trimethylbenzene	ND	2.0	ug/l							
in chloride	ND	5.0	ug/l							
xylenes	ND	2.0	ug/l							
Xylene	ND	2.0	ug/l							
ylenes, Total	ND	4.0	ug/l							
i-propyl Ether (DIPE)	ND	5.0	ug/l							
tert-Butyl Ether (ETBE)	ND	5.0	ug/l							
ethyl-tert-butyl Ether (MTBE)	ND	5.0	ug/l							
tert-Butyl Methyl Ether (TAME)	ND	5.0	ug/l							
tert-Butanol (TBA)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	24.5		ug/l	25.0		98	80-120			
Surrogate: Dibromofluoromethane	24.5		ug/l	25.0		98	80-120			
Surrogate: Toluene-d8	24.5		ug/l	25.0		98	80-120			

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Data Qualifiers
<u>Batch: 9A22018 Extracted: 01/22/09</u>									
LCS Analyzed: 01/22/2009 (9A22018-BS1)									
Benzene	24.3	2.0	ug/l	25.0	97	70-120			
Bromobenzene	25.8	5.0	ug/l	25.0	103	75-120			
Bromochloromethane	25.5	5.0	ug/l	25.0	102	70-130			
Bromodichloromethane	23.9	2.0	ug/l	25.0	95	70-135			
Bromoform	23.9	5.0	ug/l	25.0	96	55-130			
Bromomethane	24.4	5.0	ug/l	25.0	97	65-140			
n-Butylbenzene	24.8	5.0	ug/l	25.0	99	70-130			
sec-Butylbenzene	26.4	5.0	ug/l	25.0	105	70-125			
tert-Butylbenzene	26.1	5.0	ug/l	25.0	104	70-125			
Carbon tetrachloride	23.9	5.0	ug/l	25.0	96	65-140			
Chlorobenzene	26.5	2.0	ug/l	25.0	106	75-120			
Chloroethane	24.8	5.0	ug/l	25.0	99	60-140			
Chloroform	21.5	2.0	ug/l	25.0	86	70-130			
Chloromethane	20.9	5.0	ug/l	25.0	84	50-140			
2-Chlorotoluene	24.8	5.0	ug/l	25.0	99	70-125			
4-Chlorotoluene	25.5	5.0	ug/l	25.0	102	75-125			
1,2-Dibromo-3-chloropropane	24.2	5.0	ug/l	25.0	97	50-135			
Dibromochloromethane	25.4	2.0	ug/l	25.0	102	70-140			
1,2-Dibromoethane (EDB)	24.2	2.0	ug/l	25.0	97	75-125			
Dibromomethane	25.2	2.0	ug/l	25.0	101	70-125			
1,2-Dichlorobenzene	25.8	2.0	ug/l	25.0	103	75-120			
1,3-Dichlorobenzene	26.4	2.0	ug/l	25.0	106	75-120			
1,4-Dichlorobenzene	23.3	2.0	ug/l	25.0	93	75-120			
Dichlorodifluoromethane	26.0	5.0	ug/l	25.0	104	35-155			
,1-Dichloroethane	23.5	2.0	ug/l	25.0	94	70-125			
,2-Dichloroethane	23.1	2.0	ug/l	25.0	92	60-140			
,1-Dichloroethene	19.5	5.0	ug/l	25.0	78	70-125			
is-1,2-Dichloroethene	23.3	2.0	ug/l	25.0	93	70-125			
trans-1,2-Dichloroethene	21.5	2.0	ug/l	25.0	86	70-125			
,2-Dichloropropane	23.2	2.0	ug/l	25.0	93	70-125			
,3-Dichloropropane	25.1	2.0	ug/l	25.0	100	70-120			
,2-Dichloropropane	25.9	2.0	ug/l	25.0	104	65-140			
is-1,3-Dichloropropene	28.3	2.0	ug/l	25.0	113	75-125			
ans-1,3-Dichloropropene	21.5	2.0	ug/l	25.0	86	70-125			
,1-Dichloropropene	24.1	2.0	ug/l	25.0	96	75-130			
thylbenzene	24.5	2.0	ug/l	25.0	98	75-125			

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B0052405.0001

Sampled: 01/20/09

Report Number: ISA1658

Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A22018 Extracted: 01/22/09</u>										
LCS Analyzed: 01/22/2009 (9A22018-BS1)										
1,1-Dichlorobutadiene	26.4	5.0	ug/l	25.0		106	65-135			
1,1-Dipropylbenzene	25.3	2.0	ug/l	25.0		101	75-130			
1,1-Isopropyltoluene	25.2	2.0	ug/l	25.0		101	75-125			
Methylene chloride	28.7	5.0	ug/l	25.0		115	55-130			
Naphthalene	24.9	5.0	ug/l	25.0		100	55-135			
o-Propylbenzene	25.9	2.0	ug/l	25.0		104	75-130			
Tyrene	26.1	2.0	ug/l	25.0		104	75-130			
,1,1,2-Tetrachloroethane	24.6	5.0	ug/l	25.0		98	70-130			
,1,1,2-Tetrachloroethane	25.3	2.0	ug/l	25.0		101	55-130			
Tetrachloroethene	25.7	2.0	ug/l	25.0		103	70-125			
Ozone	23.8	2.0	ug/l	25.0		95	70-120			
,2,2-Trichlorobenzene	25.0	5.0	ug/l	25.0		100	65-125			
,2,4-Trichlorobenzene	27.0	5.0	ug/l	25.0		108	70-135			
,1,1-Trichloroethane	25.0	2.0	ug/l	25.0		100	65-135			
,1,1-Trichloroethane	24.2	2.0	ug/l	25.0		97	70-125			
Trichloroethene	25.2	2.0	ug/l	25.0		101	70-125			
Trichlorofluoromethane	23.0	5.0	ug/l	25.0		92	65-145			
2,2-Trichloropropane	24.4	10	ug/l	25.0		98	60-130			
2,4-Trimethylbenzene	24.5	2.0	ug/l	25.0		98	75-125			
3,5-Trimethylbenzene	24.4	2.0	ug/l	25.0		98	75-125			
inorganic chloride	24.3	5.0	ug/l	25.0		97	55-135			
polymers	52.9	2.0	ug/l	50.0		106	75-125			
Xylene	26.6	2.0	ug/l	25.0		107	75-125			
ylenes, Total	79.6	4.0	ug/l	75.0		106	70-125			
i-Butyl propyl Ether (DIPE)	24.9	5.0	ug/l	25.0		100	60-135			
Hydroxy tert-Butyl Ether (ETBE)	24.5	5.0	ug/l	25.0		98	65-135			
Ethyl-tert-butyl Ether (MTBE)	23.6	5.0	ug/l	25.0		94	60-135			
Terpenyl Methyl Ether (TAME)	25.4	5.0	ug/l	25.0		102	60-135			
t-Butanol (TBA)	120	50	ug/l	125		96	70-135			
Surrogate: 4-Bromofluorobenzene	24.9		ug/l	25.0		100	80-120			
Surrogate: Dibromofluoromethane	23.7		ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	25.1		ug/l	25.0		100	80-120			

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Report Number: ISA1658

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A22018 Extracted: 01/22/09</u>										
Matrix Spike Analyzed: 01/22/2009 (9A22018-MS1)										
Source: ISA1658-01										
Benzene	42.2	2.0	ug/l	25.0	14.6	111	65-125			
Bromobenzene	29.1	5.0	ug/l	25.0	ND	116	70-125			
Bromochloromethane	29.3	5.0	ug/l	25.0	ND	117	65-135			
Bromodichloromethane	26.5	2.0	ug/l	25.0	ND	106	70-135			
Bromoform	26.7	5.0	ug/l	25.0	ND	107	55-135			
Bromomethane	26.1	5.0	ug/l	25.0	ND	105	55-145			
n-Butylbenzene	27.4	5.0	ug/l	25.0	ND	110	65-135			
sec-Butylbenzene	29.1	5.0	ug/l	25.0	0.740	113	70-125			
tert-Butylbenzene	28.5	5.0	ug/l	25.0	0.520	112	65-130			
Carbon tetrachloride	27.0	5.0	ug/l	25.0	ND	108	65-140			
Chlorobenzene	28.8	2.0	ug/l	25.0	0.370	114	75-125			
Chloroethane	28.9	5.0	ug/l	25.0	ND	116	55-140			
Chloroform	23.9	2.0	ug/l	25.0	ND	96	65-135			
Chloromethane	23.7	5.0	ug/l	25.0	ND	95	45-145			
2-Chlorotoluene	26.9	5.0	ug/l	25.0	ND	108	65-135			
4-Chlorotoluene	27.4	5.0	ug/l	25.0	ND	110	70-135			
1,2-Dibromo-3-chloropropane	30.0	5.0	ug/l	25.0	ND	120	45-145			
Dibromochloromethane	26.9	2.0	ug/l	25.0	ND	108	65-140			
1,2-Dibromoethane (EDB)	27.3	2.0	ug/l	25.0	ND	109	70-130			
Dibromomethane	29.6	2.0	ug/l	25.0	ND	119	65-135			
1,2-Dichlorobenzene	28.3	2.0	ug/l	25.0	ND	113	75-125			
1,3-Dichlorobenzene	28.4	2.0	ug/l	25.0	ND	114	75-125			
1,4-Dichlorobenzene	26.3	2.0	ug/l	25.0	0.580	103	75-125			
Dichlorodifluoromethane	26.2	5.0	ug/l	25.0	ND	105	25-155			
1,1-Dichloroethane	26.6	2.0	ug/l	25.0	0.580	104	65-130			
2-Dichloroethane	26.3	2.0	ug/l	25.0	ND	105	60-140			
1,1-Dichloroethene	21.4	5.0	ug/l	25.0	ND	86	60-130			
is-1,2-Dichloroethene	25.9	2.0	ug/l	25.0	ND	104	65-130			
trans-1,2-Dichloroethene	24.4	2.0	ug/l	25.0	0.870	94	65-130			
2-Dichloropropane	26.2	2.0	ug/l	25.0	ND	105	65-130			
,3-Dichloropropane	28.0	2.0	ug/l	25.0	ND	112	65-135			
,2-Dichloropropane	28.4	2.0	ug/l	25.0	ND	114	60-145			
is-1,3-Dichloropropene	31.5	2.0	ug/l	25.0	ND	126	70-130			
ans-1,3-Dichloropropene	25.0	2.0	ug/l	25.0	ND	100	65-135			
,1-Dichloropropene	27.3	2.0	ug/l	25.0	ND	109	70-135			
thylbenzene	26.4	2.0	ug/l	25.0	ND	106	65-130			

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Project ID: Former Cenco Refinery
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Report Number: ISA1658

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A22018 Extracted: 01/22/09</u>										
Matrix Spike Analyzed: 01/22/2009 (9A22018-MS1)										
Source: ISA1658-01										
1,1,1-Trichloroethane	28.5	5.0	ug/l	25.0	ND	114	60-135			
1,1-Dichloroethane	31.7	2.0	ug/l	25.0	3.62	112	70-135			
p-Isopropyltoluene	27.5	2.0	ug/l	25.0	ND	110	65-130			
Methylene chloride	29.7	5.0	ug/l	25.0	ND	119	50-135			
Naphthalene	30.4	5.0	ug/l	25.0	ND	122	50-140			
1-Propylbenzene	30.2	2.0	ug/l	25.0	1.85	114	70-135			
Styrene	27.2	2.0	ug/l	25.0	ND	109	50-145			
1,1,2-Tetrachloroethane	26.2	5.0	ug/l	25.0	ND	105	65-140			
1,1,2-Tetrachloroethane	30.0	2.0	ug/l	25.0	ND	120	55-135			
Tetrachloroethene	28.0	2.0	ug/l	25.0	ND	112	65-130			
Toluene	26.6	2.0	ug/l	25.0	ND	106	70-125			
1,1,2-Trichlorobenzene	28.2	5.0	ug/l	25.0	ND	113	60-135			
1,2,4-Trichlorobenzene	29.2	5.0	ug/l	25.0	ND	117	65-135			
1,1,1-Trichloroethane	28.0	2.0	ug/l	25.0	ND	112	65-140			
1,1,2-Trichloroethane	28.2	2.0	ug/l	25.0	ND	113	65-130			
Trichloroethene	28.1	2.0	ug/l	25.0	ND	112	65-125			
Trichlorofluoromethane	25.5	5.0	ug/l	25.0	ND	102	60-145			
1,1,2-Trichloropropane	29.2	10	ug/l	25.0	ND	117	55-135			
2,4,Trimethylbenzene	26.6	2.0	ug/l	25.0	ND	106	55-135			
3,5-Trimethylbenzene	26.7	2.0	ug/l	25.0	ND	107	70-130			
1-Chloride	28.5	5.0	ug/l	25.0	2.76	103	45-140			
1,3-Dienes	55.9	2.0	ug/l	50.0	ND	112	65-130			
Xylene	27.6	2.0	ug/l	25.0	ND	111	65-125			
ylenes, Total	83.5	4.0	ug/l	75.0	ND	111	60-130			
i-Propyl Ether (DIPE)	27.6	5.0	ug/l	25.0	0.410	109	60-140			
Hydroxytert-Butyl Ether (ETBE)	27.4	5.0	ug/l	25.0	ND	110	60-135			
Ethyl-tert-butyl Ether (MTBE)	30.6	5.0	ug/l	25.0	3.08	110	55-145			
tert-Amyl Methyl Ether (TAME)	28.4	5.0	ug/l	25.0	ND	114	60-140			
tert-Butanol (TBA)	169	50	ug/l	125	23.2	117	65-140			
Surrogate: 4-Bromofluorobenzene	23.6		ug/l	25.0		94	80-120			
Surrogate: Dibromofluoromethane	23.7		ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	25.5		ug/l	25.0		102	80-120			

TestAmerica Irvine

Srinitha Reddy
Object Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0052405.0001
Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A22018 Extracted: 01/22/09</u>										
Matrix Spike Dup Analyzed: 01/22/2009 (9A22018-MSD1)										
Source: ISA1658-01										
Benzene	41.3	2.0	ug/l	25.0	14.6	107	65-125	2	20	
Bromobenzene	27.4	5.0	ug/l	25.0	ND	110	70-125	6	20	
Bromochloromethane	28.1	5.0	ug/l	25.0	ND	112	65-135	4	25	
Bromodichloromethane	25.4	2.0	ug/l	25.0	ND	102	70-135	4	20	
Bromoform	26.4	5.0	ug/l	25.0	ND	106	55-135	1	25	
Bromomethane	25.6	5.0	ug/l	25.0	ND	102	55-145	2	25	
n-Butylbenzene	26.1	5.0	ug/l	25.0	ND	104	65-135	5	20	
sec-Butylbenzene	27.2	5.0	ug/l	25.0	0.740	106	70-125	7	20	
tert-Butylbenzene	28.1	5.0	ug/l	25.0	0.520	110	65-130	2	20	
Carbon tetrachloride	25.5	5.0	ug/l	25.0	ND	102	65-140	6	25	
Chlorobenzene	27.3	2.0	ug/l	25.0	0.370	108	75-125	6	20	
Chloroethane	28.0	5.0	ug/l	25.0	ND	112	55-140	3	25	
Chloroform	22.2	2.0	ug/l	25.0	ND	89	65-135	7	20	
Chloromethane	23.3	5.0	ug/l	25.0	ND	93	45-145	1	25	
2-Chlorotoluene	25.3	5.0	ug/l	25.0	ND	101	65-135	6	20	
4-Chlorotoluene	25.2	5.0	ug/l	25.0	ND	101	70-135	8	20	
1,2-Dibromo-3-chloropropane	32.0	5.0	ug/l	25.0	ND	128	45-145	7	30	
Dibromochloromethane	25.8	2.0	ug/l	25.0	ND	103	65-140	4	25	
1,2-Dibromoethane (EDB)	26.2	2.0	ug/l	25.0	ND	105	70-130	4	25	
Dibromomethane	28.0	2.0	ug/l	25.0	ND	112	65-135	6	25	
1,2-Dichlorobenzene	27.2	2.0	ug/l	25.0	ND	109	75-125	4	20	
1,3-Dichlorobenzene	26.7	2.0	ug/l	25.0	ND	107	75-125	6	20	
1,4-Dichlorobenzene	25.1	2.0	ug/l	25.0	0.580	98	75-125	5	20	
Dichlorodifluoromethane	24.9	5.0	ug/l	25.0	ND	100	25-155	5	30	
1,1-Dichloroethane	24.5	2.0	ug/l	25.0	0.580	96	65-130	8	20	
1,2-Dichloroethane	25.2	2.0	ug/l	25.0	ND	101	60-140	4	20	
1,1-Dichloroethene	20.6	5.0	ug/l	25.0	ND	83	60-130	4	20	
trans-1,2-Dichloroethene	25.1	2.0	ug/l	25.0	ND	100	65-130	3	20	
trans-1,2-Dichloroethene	23.0	2.0	ug/l	25.0	0.870	89	65-130	6	20	
,2-Dichloropropane	25.4	2.0	ug/l	25.0	ND	102	65-130	3	20	
,3-Dichloropropane	27.0	2.0	ug/l	25.0	ND	108	65-135	4	25	
,2-Dichloropropane	27.6	2.0	ug/l	25.0	ND	110	60-145	3	25	
,is-1,3-Dichloropropene	30.1	2.0	ug/l	25.0	ND	120	70-130	5	20	
trans-1,3-Dichloropropene	23.8	2.0	ug/l	25.0	ND	95	65-135	5	25	
,1-Dichloropropene	25.6	2.0	ug/l	25.0	ND	102	70-135	6	20	
ethylbenzene	25.1	2.0	ug/l	25.0	ND	100	65-130	5	20	

TestAmerica Irvine

Sushmitha Reddy
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Arcadis Blasland, Bouck & Lec - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0052405.0001
Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09



VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A22018 Extracted: 01/22/09</u>										
Matrix Spike Dup Analyzed: 01/22/2009 (9A22018-MSD1)										
Hexachlorobutadiene	26.9	5.0	ug/l	25.0	ND	107	60-135	6	20	
Isopropylbenzene	30.5	2.0	ug/l	25.0	3.62	107	70-135	4	20	
p-Isopropyltoluene	26.1	2.0	ug/l	25.0	ND	104	65-130	5	20	
Methylene chloride	29.0	5.0	ug/l	25.0	ND	116	50-135	2	20	
Naphthalene	30.0	5.0	ug/l	25.0	ND	120	50-140	2	30	
o-Propylbenzene	28.7	2.0	ug/l	25.0	1.85	108	70-135	5	20	
Styrene	25.7	2.0	ug/l	25.0	ND	103	50-145	6	30	
1,1,2-Tetrachloroethane	24.8	5.0	ug/l	25.0	ND	99	65-140	5	20	
1,1,2-Tetrachloroethane	30.0	2.0	ug/l	25.0	ND	120	55-135	0	30	
Tetrachloroethene	26.3	2.0	ug/l	25.0	ND	105	65-130	6	20	
Toluene	25.5	2.0	ug/l	25.0	ND	102	70-125	4	20	
1,1-Trichlorobenzene	28.2	5.0	ug/l	25.0	ND	113	60-135	0	20	
1,2,4-Trichlorobenzene	28.8	5.0	ug/l	25.0	ND	115	65-135	1	20	
1,1,1-Trichloroethane	25.6	2.0	ug/l	25.0	ND	103	65-140	9	20	
1,1,1-Trichloroethane	28.4	2.0	ug/l	25.0	ND	113	65-130	0	25	
Trichloroethene	26.8	2.0	ug/l	25.0	ND	107	65-125	5	20	
Trichlorofluoromethane	24.4	5.0	ug/l	25.0	ND	98	60-145	4	25	
1,1,2-Trichloropropane	29.0	10	ug/l	25.0	ND	116	55-135	1	30	
2,2,2-Trimethylbenzene	24.9	2.0	ug/l	25.0	ND	100	55-135	7	25	
3,3,5-Trimethylbenzene	24.6	2.0	ug/l	25.0	ND	98	70-130	8	20	
Trichloroethane	27.9	5.0	ug/l	25.0	2.76	101	45-140	2	30	
1,3-Dimethylbenzenes	53.2	2.0	ug/l	50.0	ND	106	65-130	5	25	
Xylene	26.6	2.0	ug/l	25.0	ND	107	65-125	4	20	
Xylenes, Total	79.8	4.0	ug/l	75.0	ND	106	60-130	5	20	
2-Isopropyl Ether (DIPE)	26.8	5.0	ug/l	25.0	0.410	105	60-140	3	25	
Isobutyl tert-Butyl Ether (ETBE)	26.5	5.0	ug/l	25.0	ND	106	60-135	3	25	
Isobutyl-tert-butyl Ether (MTBE)	29.4	5.0	ug/l	25.0	3.08	105	55-145	4	25	
Isobutyl Methyl Ether (TAME)	27.7	5.0	ug/l	25.0	ND	111	60-140	3	30	
Isobutanol (TBA)	157	50	ug/l	125	23.2	107	65-140	8	25	
Surrogate: 4-Bromofluorobenzene	23.7		ug/l	25.0		95	80-120			
Surrogate: Dibromofluoromethane	23.8		ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	25.7		ug/l	25.0		103	80-120			

Test America Irvine

Srinitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0052405.0001
Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09

INORGANICS										
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A20101 Extracted: 01/20/09</u>										
Blank Analyzed: 01/20/2009 (9A20101-BLK1)										
Chromium VI	ND	0.0020	mg/l							
LCS Analyzed: 01/20/2009 (9A20101-BS1)										
Chromium VI	0.0524	0.0020	mg/l	0.0500		105	90-110			
Matrix Spike Analyzed: 01/20/2009 (9A20101-MS1)										
Chromium VI	0.0529	0.0020	mg/l	0.0500	0.00145	103	85-115			
Matrix Spike Dup Analyzed: 01/21/2009 (9A20101-MSD1)										
Chromium VI	0.0530	0.0020	mg/l	0.0500	0.00145	103	85-115	0	20	

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Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09

DATA QUALIFIERS AND DEFINITIONS

L Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.

S Surrogate recovery was above the acceptance limits. Data not impacted.

X Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

PD Relative Percent Difference

ADDITIONAL COMMENTS

or 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

or Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

Arcadis Blasland, Bouck & Lee - Glendale
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B0052405.0001
Report Number: ISA1658

Sampled: 01/20/09
Received: 01/20/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 7199	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8260B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Irvine

Bushmitha Reddy
Project Manager

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ISA1658 <Page 26 of 26>

CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
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ISA1658

Page 1 of 1

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

021

LABORATORY REPORT

Prepared For: Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project: Former Cenco Refinery
B0054216.0000

Sampled: 01/21/09
Received: 01/21/09
Issued: 02/03/09 14:55

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

ADDITIONAL INFORMATION: Report reissued with J flags.

LABORATORY ID	CLIENT ID	MATRIX
ISA1789-01	TB012109	Water
ISA1789-02	W-16A-0109	Water
ISA1789-03	W-16B-0109	Water
ISA1789-04	W-I6C-0109	Water
ISA1789-05	MW-503B-0109	Water
ISA1789-06	W-10-0109	Water
ISA1789-07	W-10-0109_D	Water

Reviewed By:



TestAmerica Irvine

Shmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery

B0054216.0000

Sampled: 01/21/09

Report Number: ISA1789

Received: 01/21/09

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-01 (TB012109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A23033	50	25	ND	1	1/23/2009	1/23/2009	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1789-02 (W-16A-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A23033	50	25	290	1	1/23/2009	1/23/2009	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1789-03 (W-16B-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A23033	50	25	73	1	1/23/2009	1/23/2009	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1789-04 (W-16C-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A25001	50	25	510	1	1/25/2009	1/25/2009	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1789-05 (MW-503B-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A25001	5000	2500	6200	100	1/25/2009	1/25/2009	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1789-06 (W-10-0109 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A24005	5000	2500	20000	100	1/24/2009	1/24/2009	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									
Sample ID: ISA1789-07 (W-10-0109_D - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	9A24005	5000	2500	20000	100	1/24/2009	1/24/2009	
<i>Surrogate: 4-BFB (FID) (65-140%)</i>									

TestAmerica Irvine

Sushmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery

B0054216.0000

Sampled: 01/21/09

Report Number: ISA1789

Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-01 (TB012109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A23025	2.0	0.28	ND	1	1/23/2009	1/23/2009	
Bromobenzene	EPA 8260B	9A23025	5.0	0.27	ND	1	1/23/2009	1/23/2009	
Bromoform	EPA 8260B	9A23025	5.0	0.40	ND	1	1/23/2009	1/23/2009	
Bromochloromethane	EPA 8260B	9A23025	2.0	0.30	ND	1	1/23/2009	1/23/2009	
Bromodichloromethane	EPA 8260B	9A23025	5.0	0.30	ND	1	1/23/2009	1/23/2009	
Bromoform	EPA 8260B	9A23025	5.0	0.40	ND	1	1/23/2009	1/23/2009	
Butylbenzene	EPA 8260B	9A23025	5.0	0.37	ND	1	1/23/2009	1/23/2009	
Chlorobenzene	EPA 8260B	9A23025	5.0	0.25	ND	1	1/23/2009	1/23/2009	
Chloroform	EPA 8260B	9A23025	2.0	0.33	ND	1	1/23/2009	1/23/2009	
Chloromethane	EPA 8260B	9A23025	5.0	0.40	ND	1	1/23/2009	1/23/2009	
2-Chlorotoluene	EPA 8260B	9A23025	5.0	0.28	ND	1	1/23/2009	1/23/2009	
Chlorotoluene	EPA 8260B	9A23025	5.0	0.29	ND	1	1/23/2009	1/23/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A23025	5.0	0.97	ND	1	1/23/2009	1/23/2009	
Dibromochloromethane	EPA 8260B	9A23025	2.0	0.40	ND	1	1/23/2009	1/23/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A23025	2.0	0.40	ND	1	1/23/2009	1/23/2009	
bromomethane	EPA 8260B	9A23025	2.0	0.36	ND	1	1/23/2009	1/23/2009	
1,2-Dichlorobenzene	EPA 8260B	9A23025	2.0	0.32	ND	1	1/23/2009	1/23/2009	
1,3-Dichlorobenzene	EPA 8260B	9A23025	2.0	0.35	ND	1	1/23/2009	1/23/2009	
1,4-Dichlorobenzene	EPA 8260B	9A23025	2.0	0.37	ND	1	1/23/2009	1/23/2009	
1,1-Dichlorodifluoromethane	EPA 8260B	9A23025	5.0	0.26	ND	1	1/23/2009	1/23/2009	
1,1-Dichloroethane	EPA 8260B	9A23025	2.0	0.40	ND	1	1/23/2009	1/23/2009	
1,2-Dichloroethane	EPA 8260B	9A23025	2.0	0.28	ND	1	1/23/2009	1/23/2009	
-Dichloroethene	EPA 8260B	9A23025	5.0	0.42	ND	1	1/23/2009	1/23/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A23025	2.0	0.32	ND	1	1/23/2009	1/23/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A23025	2.0	0.30	ND	1	1/23/2009	1/23/2009	
1,1-Dichloropropane	EPA 8260B	9A23025	2.0	0.35	ND	1	1/23/2009	1/23/2009	
1,3-Dichloropropane	EPA 8260B	9A23025	2.0	0.32	ND	1	1/23/2009	1/23/2009	
2,2-Dichloropropane	EPA 8260B	9A23025	2.0	0.34	ND	1	1/23/2009	1/23/2009	
1,1,2,3-Dichloropropene	EPA 8260B	9A23025	2.0	0.22	ND	1	1/23/2009	1/23/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A23025	2.0	0.32	ND	1	1/23/2009	1/23/2009	
1,1-Dichloropropene	EPA 8260B	9A23025	2.0	0.28	ND	1	1/23/2009	1/23/2009	
Ethylbenzene	EPA 8260B	9A23025	2.0	0.25	ND	1	1/23/2009	1/23/2009	
1,1,2-Trichlorobutadiene	EPA 8260B	9A23025	5.0	0.38	ND	1	1/23/2009	1/23/2009	
Isopropylbenzene	EPA 8260B	9A23025	2.0	0.25	ND	1	1/23/2009	1/23/2009	
p-Isopropyltoluene	EPA 8260B	9A23025	2.0	0.28	ND	1	1/23/2009	1/23/2009	
Methylene chloride	EPA 8260B	9A23025	5.0	0.95	ND	1	1/23/2009	1/23/2009	
Naphthalene	EPA 8260B	9A23025	5.0	0.41	ND	1	1/23/2009	1/23/2009	

TestAmerica Irvine

Sashmitha Reddy
Project Manager

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 Attention: Leah Levy

Project ID: Former Cenco Refinery
 B0054216.0000
 Report Number: ISA1789

Sampled: 01/21/09
 Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-01 (TB012109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A23025	2.0	0.27	ND	1	1/23/2009	1/23/2009	
Styrene	EPA 8260B	9A23025	2.0	0.20	ND	1	1/23/2009	1/23/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A23025	5.0	0.27	ND	1	1/23/2009	1/23/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A23025	2.0	0.30	ND	1	1/23/2009	1/23/2009	
Tetrachloroethylene	EPA 8260B	9A23025	2.0	0.32	ND	1	1/23/2009	1/23/2009	
Toluene	EPA 8260B	9A23025	2.0	0.36	ND	1	1/23/2009	1/23/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A23025	5.0	0.30	ND	1	1/23/2009	1/23/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A23025	5.0	0.48	ND	1	1/23/2009	1/23/2009	
1,1,1-Trichloroethane	EPA 8260B	9A23025	2.0	0.30	ND	1	1/23/2009	1/23/2009	
1,1,2-Trichloroethane	EPA 8260B	9A23025	2.0	0.30	ND	1	1/23/2009	1/23/2009	
Trichloroethylene	EPA 8260B	9A23025	2.0	0.26	ND	1	1/23/2009	1/23/2009	
Trichlorofluoromethane	EPA 8260B	9A23025	5.0	0.34	ND	1	1/23/2009	1/23/2009	
1,2,3-Trichloropropane	EPA 8260B	9A23025	10	0.40	ND	1	1/23/2009	1/23/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A23025	2.0	0.23	ND	1	1/23/2009	1/23/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A23025	2.0	0.26	ND	1	1/23/2009	1/23/2009	
Vinyl chloride	EPA 8260B	9A23025	5.0	0.40	ND	1	1/23/2009	1/23/2009	
m,p-Xylenes	EPA 8260B	9A23025	2.0	0.60	ND	1	1/23/2009	1/23/2009	
o-Xylene	EPA 8260B	9A23025	2.0	0.30	ND	1	1/23/2009	1/23/2009	
Xylenes, Total	EPA 8260B	9A23025	4.0	0.90	ND	1	1/23/2009	1/23/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A23025	5.0	0.25	ND	1	1/23/2009	1/23/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A23025	5.0	0.28	ND	1	1/23/2009	1/23/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A23025	5.0	0.32	ND	1	1/23/2009	1/23/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A23025	5.0	0.33	ND	1	1/23/2009	1/23/2009	
tert-Butanol (TBA)	EPA 8260B	9A23025	50	6.5	ND	1	1/23/2009	1/23/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					100 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					95 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					97 %				

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B0054216.0000
Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-02RE1 (W-16A-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A23031	2.0	0.28	30	1	1/23/2009	1/23/2009	
Bromobenzene	EPA 8260B	9A23031	5.0	0.27	ND	1	1/23/2009	1/23/2009	
1,1-Dromochloromethane	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/23/2009	
1,1-Dromodichloromethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/23/2009	
Bromoform	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/23/2009	
1,1-Dromomethane	EPA 8260B	9A23031	5.0	0.42	ND	1	1/23/2009	1/23/2009	
1,1-Butylbenzene	EPA 8260B	9A23031	5.0	0.37	ND	1	1/23/2009	1/23/2009	
sec-Butylbenzene	EPA 8260B	9A23031	5.0	0.25	2.8	1	1/23/2009	1/23/2009	J
t-Butylbenzene	EPA 8260B	9A23031	5.0	0.22	0.70	1	1/23/2009	1/23/2009	J
Carbon tetrachloride	EPA 8260B	9A23031	5.0	0.28	ND	1	1/23/2009	1/23/2009	
Chlorobenzene	EPA 8260B	9A23031	2.0	0.36	0.45	1	1/23/2009	1/23/2009	J
Chloroethane	EPA 8260B	9A23031	5.0	0.40	0.90	1	1/23/2009	1/23/2009	J
Chloroform	EPA 8260B	9A23031	2.0	0.33	ND	1	1/23/2009	1/23/2009	
Chloromethane	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/23/2009	
2-Chlorotoluene	EPA 8260B	9A23031	5.0	0.28	ND	1	1/23/2009	1/23/2009	
Chlorotoluene	EPA 8260B	9A23031	5.0	0.29	ND	1	1/23/2009	1/23/2009	
1,2-Dibromo-3-chloropropane	EPA 8260B	9A23031	5.0	0.97	ND	1	1/23/2009	1/23/2009	
Dibromochloromethane	EPA 8260B	9A23031	2.0	0.40	ND	1	1/23/2009	1/23/2009	
1,1,2-Dibromoethane (EDB)	EPA 8260B	9A23031	2.0	0.40	ND	1	1/23/2009	1/23/2009	
1,1-Dromomethane	EPA 8260B	9A23031	2.0	0.36	ND	1	1/23/2009	1/23/2009	
1,1,2-Dichlorobenzene	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/23/2009	
1,1,3-Dichlorobenzene	EPA 8260B	9A23031	2.0	0.35	ND	1	1/23/2009	1/23/2009	
1,1,4-Dichlorobenzene	EPA 8260B	9A23031	2.0	0.37	ND	1	1/23/2009	1/23/2009	
1,1-Chlorodifluoromethane	EPA 8260B	9A23031	5.0	0.26	ND	1	1/23/2009	1/23/2009	
1,1,1-Dichloroethane	EPA 8260B	9A23031	2.0	0.40	2.5	1	1/23/2009	1/23/2009	
1,1,2-Dichloroethane	EPA 8260B	9A23031	2.0	0.28	ND	1	1/23/2009	1/23/2009	
1,1-Dichloroethene	EPA 8260B	9A23031	5.0	0.42	ND	1	1/23/2009	1/23/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/23/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A23031	2.0	0.30	0.72	1	1/23/2009	1/23/2009	J
1,1-Dichloropropane	EPA 8260B	9A23031	2.0	0.35	ND	1	1/23/2009	1/23/2009	
1,1,1-Dichloropropane	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/23/2009	
2,2-Dichloropropane	EPA 8260B	9A23031	2.0	0.34	ND	1	1/23/2009	1/23/2009	
1,1,1-Dichloropropene	EPA 8260B	9A23031	2.0	0.22	ND	1	1/23/2009	1/23/2009	L
1,1,2-Dichloropropene	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/23/2009	
1,1-Dichloropropene	EPA 8260B	9A23031	2.0	0.28	ND	1	1/23/2009	1/23/2009	
Methylbenzene	EPA 8260B	9A23031	2.0	0.25	ND	1	1/23/2009	1/23/2009	
1,1-Dichlorobutadiene	EPA 8260B	9A23031	5.0	0.38	ND	1	1/23/2009	1/23/2009	
Isopropylbenzene	EPA 8260B	9A23031	2.0	0.25	9.4	1	1/23/2009	1/23/2009	
p-Isopropyltoluene	EPA 8260B	9A23031	2.0	0.28	ND	1	1/23/2009	1/23/2009	
1,1-Dimethylene chloride	EPA 8260B	9A23031	5.0	0.95	ND	1	1/23/2009	1/23/2009	
Naphthalene	EPA 8260B	9A23031	5.0	0.41	ND	1	1/23/2009	1/23/2009	

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Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-02RE1 (W-16A-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A23031	2.0	0.27	4.2	1	1/23/2009	1/23/2009	
Styrene	EPA 8260B	9A23031	2.0	0.20	ND	1	1/23/2009	1/23/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A23031	5.0	0.27	ND	1	1/23/2009	1/23/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/23/2009	
Tetrachloroethylene	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/23/2009	
Toluene	EPA 8260B	9A23031	2.0	0.36	ND	1	1/23/2009	1/23/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A23031	5.0	0.30	ND	1	1/23/2009	1/23/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A23031	5.0	0.48	ND	1	1/23/2009	1/23/2009	
1,1,1-Trichloroethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/23/2009	
1,1,2-Trichloroethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/23/2009	
Trichloroethylene	EPA 8260B	9A23031	2.0	0.26	ND	1	1/23/2009	1/23/2009	
Trichlorofluoromethane	EPA 8260B	9A23031	5.0	0.34	ND	1	1/23/2009	1/23/2009	
1,2,3-Trichloropropane	EPA 8260B	9A23031	10	0.40	ND	1	1/23/2009	1/23/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A23031	2.0	0.23	ND	1	1/23/2009	1/23/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A23031	2.0	0.26	ND	1	1/23/2009	1/23/2009	
Vinyl chloride	EPA 8260B	9A23031	5.0	0.40	7.2	1	1/23/2009	1/23/2009	
m,p-Xylenes	EPA 8260B	9A23031	2.0	0.60	ND	1	1/23/2009	1/23/2009	
o-Xylene	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/23/2009	
Xylenes, Total	EPA 8260B	9A23031	4.0	0.90	ND	1	1/23/2009	1/23/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A23031	5.0	0.25	0.25	1	1/23/2009	1/23/2009	J
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A23031	5.0	0.28	ND	1	1/23/2009	1/23/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A23031	5.0	0.32	ND	1	1/23/2009	1/23/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A23031	5.0	0.33	ND	1	1/23/2009	1/23/2009	
tert-Butanol (TBA)	EPA 8260B	9A23031	50	6.5	31	1	1/23/2009	1/23/2009	J
Surrogate: 4-Bromofluorobenzene (80-120%)									
Surrogate: Dibromofluoromethane (80-120%)									
Surrogate: Toluene-d8 (80-120%)									
93 %									
95 %									
106 %									

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Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-03 (W-16B-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A23031	2.0	0.28	16	1	1/23/2009	1/24/2009	
Bromobenzene	EPA 8260B	9A23031	5.0	0.27	ND	1	1/23/2009	1/24/2009	
Chlorochloromethane	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/24/2009	
Dromodichloromethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/24/2009	
Bromoform	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/24/2009	
Chloromethane	EPA 8260B	9A23031	5.0	0.42	ND	1	1/23/2009	1/24/2009	
Butylbenzene	EPA 8260B	9A23031	5.0	0.37	ND	1	1/23/2009	1/24/2009	
sec-Butylbenzene	EPA 8260B	9A23031	5.0	0.25	ND	1	1/23/2009	1/24/2009	
t-Butylbenzene	EPA 8260B	9A23031	5.0	0.22	ND	1	1/23/2009	1/24/2009	
Carbon tetrachloride	EPA 8260B	9A23031	5.0	0.28	ND	1	1/23/2009	1/24/2009	
Chlorobenzene	EPA 8260B	9A23031	2.0	0.36	ND	1	1/23/2009	1/24/2009	
Chloroethane	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/24/2009	
Chloroform	EPA 8260B	9A23031	2.0	0.33	ND	1	1/23/2009	1/24/2009	
Chloromethane	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/24/2009	
2-Chlorotoluene	EPA 8260B	9A23031	5.0	0.28	ND	1	1/23/2009	1/24/2009	
Chlorotoluene	EPA 8260B	9A23031	5.0	0.29	ND	1	1/23/2009	1/24/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A23031	5.0	0.97	ND	1	1/23/2009	1/24/2009	
Dibromochloromethane	EPA 8260B	9A23031	2.0	0.40	ND	1	1/23/2009	1/24/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A23031	2.0	0.40	ND	1	1/23/2009	1/24/2009	
bromomethane	EPA 8260B	9A23031	2.0	0.36	ND	1	1/23/2009	1/24/2009	
1,2-Dichlorobenzene	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/24/2009	
1,3-Dichlorobenzene	EPA 8260B	9A23031	2.0	0.35	ND	1	1/23/2009	1/24/2009	
4-Dichlorobenzene	EPA 8260B	9A23031	2.0	0.37	ND	1	1/23/2009	1/24/2009	
chlorodifluoromethane	EPA 8260B	9A23031	5.0	0.26	ND	1	1/23/2009	1/24/2009	
1,1-Dichloroethane	EPA 8260B	9A23031	2.0	0.40	ND	1	1/23/2009	1/24/2009	
2-Dichloroethane	EPA 8260B	9A23031	2.0	0.28	ND	1	1/23/2009	1/24/2009	
1-Dichloroethene	EPA 8260B	9A23031	5.0	0.42	ND	1	1/23/2009	1/24/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A23031	2.0	0.32	9.7	1	1/23/2009	1/24/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A23031	2.0	0.30	15	1	1/23/2009	1/24/2009	
1-Dichloropropane	EPA 8260B	9A23031	2.0	0.35	ND	1	1/23/2009	1/24/2009	
1,3-Dichloropropane	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/24/2009	
2,2-Dichloropropane	EPA 8260B	9A23031	2.0	0.34	ND	1	1/23/2009	1/24/2009	
-1,3-Dichloropropene	EPA 8260B	9A23031	2.0	0.22	ND	1	1/23/2009	1/24/2009	L
trans-1,3-Dichloropropene	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/24/2009	
1,1-Dichloropropene	EPA 8260B	9A23031	2.0	0.28	ND	1	1/23/2009	1/24/2009	
Phylbenzene	EPA 8260B	9A23031	2.0	0.25	ND	1	1/23/2009	1/24/2009	
Trachlorobutadiene	EPA 8260B	9A23031	5.0	0.38	ND	1	1/23/2009	1/24/2009	
Isopropylbenzene	EPA 8260B	9A23031	2.0	0.25	0.84	1	1/23/2009	1/24/2009	J
p-Isopropyltoluene	EPA 8260B	9A23031	2.0	0.28	ND	1	1/23/2009	1/24/2009	
ethylene chloride	EPA 8260B	9A23031	5.0	0.95	ND	1	1/23/2009	1/24/2009	
Naphthalene	EPA 8260B	9A23031	5.0	0.41	ND	1	1/23/2009	1/24/2009	

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Sampled: 01/21/09
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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-03 (W-16B-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A23031	2.0	0.27	0.38	1	1/23/2009	1/24/2009	J
Styrene	EPA 8260B	9A23031	2.0	0.20	ND	1	1/23/2009	1/24/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A23031	5.0	0.27	ND	1	1/23/2009	1/24/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/24/2009	
Tetrachloroethene	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/24/2009	
Toluene	EPA 8260B	9A23031	2.0	0.36	ND	1	1/23/2009	1/24/2009	
1,2,3-Trichlorobenzene	EPA 8260B	9A23031	5.0	0.30	ND	1	1/23/2009	1/24/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A23031	5.0	0.48	ND	1	1/23/2009	1/24/2009	
1,1,1-Trichloroethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/24/2009	
1,1,2-Trichloroethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/24/2009	
Trichloroethene	EPA 8260B	9A23031	2.0	0.26	1.0	1	1/23/2009	1/24/2009	J
Trichlorofluoromethane	EPA 8260B	9A23031	5.0	0.34	ND	1	1/23/2009	1/24/2009	
1,2,3-Trichloropropane	EPA 8260B	9A23031	10	0.40	ND	1	1/23/2009	1/24/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A23031	2.0	0.23	ND	1	1/23/2009	1/24/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A23031	2.0	0.26	ND	1	1/23/2009	1/24/2009	
Vinyl chloride	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/24/2009	
m,p-Xylenes	EPA 8260B	9A23031	2.0	0.60	ND	1	1/23/2009	1/24/2009	
o-Xylene	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/24/2009	
Xylenes, Total	EPA 8260B	9A23031	4.0	0.90	ND	1	1/23/2009	1/24/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A23031	5.0	0.25	ND	1	1/23/2009	1/24/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A23031	5.0	0.28	ND	1	1/23/2009	1/24/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A23031	5.0	0.32	ND	1	1/23/2009	1/24/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A23031	5.0	0.33	ND	1	1/23/2009	1/24/2009	
tert-Butanol (TBA)	EPA 8260B	9A23031	50	6.5	11	1	1/23/2009	1/24/2009	J
Surrogate: 4-Bromofluorobenzene (80-120%)									
Surrogate: Dibromofluoromethane (80-120%)									
Surrogate: Toluene-d8 (80-120%)									
94 %									
95 %									
100 %									

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Project ID: Former Cenco Refinery
B0054216.0000
Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-04 (W-16C-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A23031	2.0	0.28	40	1	1/23/2009	1/24/2009	
Bromobenzene	EPA 8260B	9A23031	5.0	0.27	ND	1	1/23/2009	1/24/2009	
Bromochloromethane	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/24/2009	
Bromodichloromethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/24/2009	
Bromoform	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/24/2009	
Bromomethane	EPA 8260B	9A23031	5.0	0.42	ND	1	1/23/2009	1/24/2009	
Butylbenzene	EPA 8260B	9A23031	5.0	0.37	ND	1	1/23/2009	1/24/2009	
sec-Butylbenzene	EPA 8260B	9A23031	5.0	0.25	ND	1	1/23/2009	1/24/2009	
tert-Butylbenzene	EPA 8260B	9A23031	5.0	0.22	ND	1	1/23/2009	1/24/2009	
Carbon tetrachloride	EPA 8260B	9A23031	5.0	0.28	ND	1	1/23/2009	1/24/2009	
Chlorobenzene	EPA 8260B	9A23031	2.0	0.36	16	1	1/23/2009	1/24/2009	
Chloroethane	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/24/2009	
Chloroform	EPA 8260B	9A23031	2.0	0.33	ND	1	1/23/2009	1/24/2009	
Chloromethane	EPA 8260B	9A23031	5.0	0.40	ND	1	1/23/2009	1/24/2009	
2-Chlorotoluene	EPA 8260B	9A23031	5.0	0.28	ND	1	1/23/2009	1/24/2009	
Chlorotoluene	EPA 8260B	9A23031	5.0	0.29	ND	1	1/23/2009	1/24/2009	
2-Dibromo-3-chloropropane	EPA 8260B	9A23031	5.0	0.97	ND	1	1/23/2009	1/24/2009	
Dibromochloromethane	EPA 8260B	9A23031	2.0	0.40	ND	1	1/23/2009	1/24/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A23031	2.0	0.40	ND	1	1/23/2009	1/24/2009	
ibromomethane	EPA 8260B	9A23031	2.0	0.36	ND	1	1/23/2009	1/24/2009	
1,2-Dichlorobenzene	EPA 8260B	9A23031	2.0	0.32	2.1	1	1/23/2009	1/24/2009	
1,3-Dichlorobenzene	EPA 8260B	9A23031	2.0	0.35	ND	1	1/23/2009	1/24/2009	
4-Dichlorobenzene	EPA 8260B	9A23031	2.0	0.37	ND	1	1/23/2009	1/24/2009	
chlorodifluoromethane	EPA 8260B	9A23031	5.0	0.26	ND	1	1/23/2009	1/24/2009	
1,1-Dichloroethane	EPA 8260B	9A23031	2.0	0.40	35	1	1/23/2009	1/24/2009	
1,2-Dichloroethane	EPA 8260B	9A23031	2.0	0.28	ND	1	1/23/2009	1/24/2009	
1-Dichloroethene	EPA 8260B	9A23031	5.0	0.42	3.8	1	1/23/2009	1/24/2009	J
cis-1,2-Dichloroethene	EPA 8260B	9A23031	2.0	0.32	73	1	1/23/2009	1/24/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A23031	2.0	0.30	17	1	1/23/2009	1/24/2009	
l-Dichloropropane	EPA 8260B	9A23031	2.0	0.35	3.7	1	1/23/2009	1/24/2009	
1,3-Dichloropropane	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/24/2009	
2,2-Dichloropropane	EPA 8260B	9A23031	2.0	0.34	ND	1	1/23/2009	1/24/2009	
-1,3-Dichloropropene	EPA 8260B	9A23031	2.0	0.22	ND	1	1/23/2009	1/24/2009	L
ns-1,3-Dichloropropene	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/24/2009	
1,1-Dichloropropene	EPA 8260B	9A23031	2.0	0.28	ND	1	1/23/2009	1/24/2009	
Phylbenzene	EPA 8260B	9A23031	2.0	0.25	ND	1	1/23/2009	1/24/2009	
exachlorobutadiene	EPA 8260B	9A23031	5.0	0.38	ND	1	1/23/2009	1/24/2009	
Isopropylbenzene	EPA 8260B	9A23031	2.0	0.25	ND	1	1/23/2009	1/24/2009	
n-Isopropyltoluene	EPA 8260B	9A23031	2.0	0.28	ND	1	1/23/2009	1/24/2009	
ethylene chloride	EPA 8260B	9A23031	5.0	0.95	ND	1	1/23/2009	1/24/2009	
Naphthalene	EPA 8260B	9A23031	5.0	0.41	ND	1	1/23/2009	1/24/2009	

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 B0054216.0000
 Report Number: ISA1789

Sampled: 01/21/09
 Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-04 (W-16C-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A23031	2.0	0.27	ND	1	1/23/2009	1/24/2009	
Styrene	EPA 8260B	9A23031	2.0	0.20	ND	1	1/23/2009	1/24/2009	
1,1,1,2-Tetrachloroethane	EPA 8260B	9A23031	5.0	0.27	ND	1	1/23/2009	1/24/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/24/2009	
Tetrachloroethylene	EPA 8260B	9A23031	2.0	0.32	ND	1	1/23/2009	1/24/2009	
Toluene	EPA 8260B	9A23031	2.0	0.36	0.45	1	1/23/2009	1/24/2009	J
1,2,3-Trichlorobenzene	EPA 8260B	9A23031	5.0	0.30	ND	1	1/23/2009	1/24/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A23031	5.0	0.48	ND	1	1/23/2009	1/24/2009	
1,1,1-Trichloroethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/24/2009	
1,1,2-Trichloroethane	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/24/2009	
Trichloroethylene	EPA 8260B	9A23031	2.0	0.26	0.81	1	1/23/2009	1/24/2009	J
Trichlorofluoromethane	EPA 8260B	9A23031	5.0	0.34	ND	1	1/23/2009	1/24/2009	
1,2,3-Trichloropropane	EPA 8260B	9A23031	10	0.40	ND	1	1/23/2009	1/24/2009	
1,2,4-Trimethylbenzene	EPA 8260B	9A23031	2.0	0.23	ND	1	1/23/2009	1/24/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A23031	2.0	0.26	ND	1	1/23/2009	1/24/2009	
Vinyl chloride	EPA 8260B	9A23031	5.0	0.40	24	1	1/23/2009	1/24/2009	
m,p-Xylenes	EPA 8260B	9A23031	2.0	0.60	ND	1	1/23/2009	1/24/2009	
o-Xylene	EPA 8260B	9A23031	2.0	0.30	ND	1	1/23/2009	1/24/2009	
Xylenes, Total	EPA 8260B	9A23031	4.0	0.90	ND	1	1/23/2009	1/24/2009	
Di-isopropyl Ether (DIPE)	EPA 8260B	9A23031	5.0	0.25	ND	1	1/23/2009	1/24/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A23031	5.0	0.28	ND	1	1/23/2009	1/24/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A23031	5.0	0.32	ND	1	1/23/2009	1/24/2009	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	9A23031	5.0	0.33	ND	1	1/23/2009	1/24/2009	
Surrogate: 4-Bromofluorobenzene (80-120%)					95 %				
Surrogate: Dibromofluoromethane (80-120%)					98 %				
Surrogate: Toluene-d8 (80-120%)					102 %				

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Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-04RE1 (W-16C-0109 - Water) - cont.									
Reporting Units: ug/l									
tert-Butanol (TBA)	EPA 8260B	9A27011	50	6.5	ND	1	1/27/2009	1/27/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
<i>Surrogate: Toluene-d8 (80-120%)</i>									

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-05 (MW-503B-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A23025	10	1.4	410	5	1/23/2009	1/23/2009	
Bromobenzene	EPA 8260B	9A23025	25	1.4	ND	5	1/23/2009	1/23/2009	
Bromoform	EPA 8260B	9A23025	10	1.5	ND	5	1/23/2009	1/23/2009	
Bromochloromethane	EPA 8260B	9A23025	25	2.0	ND	5	1/23/2009	1/23/2009	
Bromodichloromethane	EPA 8260B	9A23025	10	1.5	ND	5	1/23/2009	1/23/2009	
Bromomethane	EPA 8260B	9A23025	25	2.1	ND	5	1/23/2009	1/23/2009	
n-Butylbenzene	EPA 8260B	9A23025	25	1.8	16	5	1/23/2009	1/23/2009	J
sec-Butylbenzene	EPA 8260B	9A23025	25	1.2	23	5	1/23/2009	1/23/2009	J
tert-Butylbenzene	EPA 8260B	9A23025	25	1.1	2.4	5	1/23/2009	1/23/2009	J
Carbon tetrachloride	EPA 8260B	9A23025	25	1.4	ND	5	1/23/2009	1/23/2009	
Chlorobenzene	EPA 8260B	9A23025	10	1.8	ND	5	1/23/2009	1/23/2009	
Chloroethane	EPA 8260B	9A23025	25	2.0	ND	5	1/23/2009	1/23/2009	
Chloroform	EPA 8260B	9A23025	10	1.6	ND	5	1/23/2009	1/23/2009	
Chloromethane	EPA 8260B	9A23025	25	2.0	ND	5	1/23/2009	1/23/2009	
2-Chlorotoluene	EPA 8260B	9A23025	25	1.4	ND	5	1/23/2009	1/23/2009	
4-Chlorotoluene	EPA 8260B	9A23025	25	1.4	ND	5	1/23/2009	1/23/2009	
1,2-Dibromo-3-chloropropane	EPA 8260B	9A23025	25	4.8	ND	5	1/23/2009	1/23/2009	
Dibromochloromethane	EPA 8260B	9A23025	10	2.0	ND	5	1/23/2009	1/23/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A23025	10	2.0	ND	5	1/23/2009	1/23/2009	
Dibromomethane	EPA 8260B	9A23025	10	1.8	ND	5	1/23/2009	1/23/2009	
1,2-Dichlorobenzene	EPA 8260B	9A23025	10	1.6	ND	5	1/23/2009	1/23/2009	
1,3-Dichlorobenzene	EPA 8260B	9A23025	10	1.8	ND	5	1/23/2009	1/23/2009	
1,4-Dichlorobenzene	EPA 8260B	9A23025	10	1.8	ND	5	1/23/2009	1/23/2009	
Dichlorodifluoromethane	EPA 8260B	9A23025	25	1.3	ND	5	1/23/2009	1/23/2009	
1,1-Dichloroethane	EPA 8260B	9A23025	10	2.0	ND	5	1/23/2009	1/23/2009	
1,2-Dichloroethane	EPA 8260B	9A23025	10	1.4	ND	5	1/23/2009	1/23/2009	
1,1-Dichloroethene	EPA 8260B	9A23025	25	2.1	ND	5	1/23/2009	1/23/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A23025	10	1.6	9.2	5	1/23/2009	1/23/2009	J
trans-1,2-Dichloroethene	EPA 8260B	9A23025	10	1.5	ND	5	1/23/2009	1/23/2009	
1,2-Dichloropropane	EPA 8260B	9A23025	10	1.8	ND	5	1/23/2009	1/23/2009	
1,3-Dichloropropane	EPA 8260B	9A23025	10	1.6	ND	5	1/23/2009	1/23/2009	
2,2-Dichloropropane	EPA 8260B	9A23025	10	1.7	ND	5	1/23/2009	1/23/2009	
cis-1,3-Dichloropropene	EPA 8260B	9A23025	10	1.1	ND	5	1/23/2009	1/23/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A23025	10	1.6	ND	5	1/23/2009	1/23/2009	
1,1-Dichloropropene	EPA 8260B	9A23025	10	1.4	ND	5	1/23/2009	1/23/2009	
Ethylbenzene	EPA 8260B	9A23025	10	1.2	39	5	1/23/2009	1/23/2009	
Hexachlorobutadiene	EPA 8260B	9A23025	25	1.9	ND	5	1/23/2009	1/23/2009	
Isopropylbenzene	EPA 8260B	9A23025	10	1.2	110	5	1/23/2009	1/23/2009	
p-Isopropyltoluene	EPA 8260B	9A23025	10	1.4	2.6	5	1/23/2009	1/23/2009	J
Methylene chloride	EPA 8260B	9A23025	25	4.8	ND	5	1/23/2009	1/23/2009	
Naphthalene	EPA 8260B	9A23025	25	2.0	36	5	1/23/2009	1/23/2009	

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Reporting Units: ug/l	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-05 (MW-503B-0109 - Water) - cont.										
n-Propylbenzene	EPA 8260B	9A23025	10	1.4	200	5	1/23/2009	1/23/2009		
Styrene	EPA 8260B	9A23025	10	1.0	ND	5	1/23/2009	1/23/2009		
1,1,2-Tetrachloroethane	EPA 8260B	9A23025	25	1.4	ND	5	1/23/2009	1/23/2009		
1,1,2,2-Tetrachloroethane	EPA 8260B	9A23025	10	1.5	ND	5	1/23/2009	1/23/2009		
Tetrachloroethene	EPA 8260B	9A23025	10	1.6	ND	5	1/23/2009	1/23/2009		
oluene	EPA 8260B	9A23025	10	1.8	14	5	1/23/2009	1/23/2009		
2,3-Trichlorobenzene	EPA 8260B	9A23025	25	1.5	ND	5	1/23/2009	1/23/2009		
1,2,4-Trichlorobenzene	EPA 8260B	9A23025	25	2.4	ND	5	1/23/2009	1/23/2009		
1,1,1-Trichloroethane	EPA 8260B	9A23025	10	1.5	ND	5	1/23/2009	1/23/2009		
1,2-Trichloroethane	EPA 8260B	9A23025	10	1.5	ND	5	1/23/2009	1/23/2009		
Trichloroethene	EPA 8260B	9A23025	10	1.3	ND	5	1/23/2009	1/23/2009		
Trichlorofluoromethane	EPA 8260B	9A23025	25	1.7	ND	5	1/23/2009	1/23/2009		
2,3-Trichloropropane	EPA 8260B	9A23025	50	2.0	ND	5	1/23/2009	1/23/2009		
2,4-Trimethylbenzene	EPA 8260B	9A23025	10	1.2	ND	5	1/23/2009	1/23/2009		
1,3,5-Trimethylbenzene	EPA 8260B	9A23025	10	1.3	4.2	5	1/23/2009	1/23/2009	J	
vinyl chloride	EPA 8260B	9A23025	25	2.0	25	5	1/23/2009	1/23/2009		
p-Xylenes	EPA 8260B	9A23025	10	3.0	28	5	1/23/2009	1/23/2009		
o-Xylene	EPA 8260B	9A23025	10	1.5	3.0	5	1/23/2009	1/23/2009	J	
Xylenes, Total	EPA 8260B	9A23025	20	4.5	32	5	1/23/2009	1/23/2009		
2-isopropyl Ether (DIPE)	EPA 8260B	9A23025	25	1.2	ND	5	1/23/2009	1/23/2009		
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A23025	25	1.4	ND	5	1/23/2009	1/23/2009		
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A23025	25	1.6	3.0	5	1/23/2009	1/23/2009	J	
t-Amyl Methyl Ether (TAME)	EPA 8260B	9A23025	25	1.6	ND	5	1/23/2009	1/23/2009		
t-Butanol (TBA)	EPA 8260B	9A23025	250	32	ND	5	1/23/2009	1/23/2009		
Surrogate: 4-Bromofluorobenzene (80-120%)										
Surrogate: Dibromofluoromethane (80-120%)										
Surrogate: Toluene-d8 (80-120%)										
97 %										
95 %										
101 %										

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-06 (W-10-0109 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A23025	200	28	8100	100	1/23/2009	1/23/2009	
Bromobenzene	EPA 8260B	9A23025	500	27	ND	100	1/23/2009	1/23/2009	
Bromoform	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
Bromochloromethane	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
Bromodichloromethane	EPA 8260B	9A23025	500	30	ND	100	1/23/2009	1/23/2009	
Bromoform	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
Bromomethane	EPA 8260B	9A23025	500	42	ND	100	1/23/2009	1/23/2009	
n-Butylbenzene	EPA 8260B	9A23025	500	37	ND	100	1/23/2009	1/23/2009	
sec-Butylbenzene	EPA 8260B	9A23025	500	25	ND	100	1/23/2009	1/23/2009	
tert-Butylbenzene	EPA 8260B	9A23025	500	22	ND	100	1/23/2009	1/23/2009	
Carbon tetrachloride	EPA 8260B	9A23025	500	28	ND	100	1/23/2009	1/23/2009	
Chlorobenzene	EPA 8260B	9A23025	200	36	ND	100	1/23/2009	1/23/2009	
Chloroethane	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
Chloroform	EPA 8260B	9A23025	200	33	ND	100	1/23/2009	1/23/2009	
Chloromethane	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
2-Chlorotoluene	EPA 8260B	9A23025	500	28	ND	100	1/23/2009	1/23/2009	
4-Chlorotoluene	EPA 8260B	9A23025	500	29	ND	100	1/23/2009	1/23/2009	
1,2-Dibromo-3-chloropropane	EPA 8260B	9A23025	500	97	ND	100	1/23/2009	1/23/2009	
Dibromochloromethane	EPA 8260B	9A23025	200	40	ND	100	1/23/2009	1/23/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A23025	200	40	ND	100	1/23/2009	1/23/2009	
Dibromomethane	EPA 8260B	9A23025	200	36	ND	100	1/23/2009	1/23/2009	
1,2-Dichlorobenzene	EPA 8260B	9A23025	200	32	ND	100	1/23/2009	1/23/2009	
1,3-Dichlorobenzene	EPA 8260B	9A23025	200	35	ND	100	1/23/2009	1/23/2009	
1,4-Dichlorobenzene	EPA 8260B	9A23025	200	37	ND	100	1/23/2009	1/23/2009	
Dichlorodifluoromethane	EPA 8260B	9A23025	500	26	ND	100	1/23/2009	1/23/2009	
1,1-Dichloroethane	EPA 8260B	9A23025	200	40	ND	100	1/23/2009	1/23/2009	
1,2-Dichloroethane	EPA 8260B	9A23025	200	28	ND	100	1/23/2009	1/23/2009	
1,1-Dichloroethene	EPA 8260B	9A23025	500	42	ND	100	1/23/2009	1/23/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A23025	200	32	ND	100	1/23/2009	1/23/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
1,2-Dichloropropane	EPA 8260B	9A23025	200	35	ND	100	1/23/2009	1/23/2009	
1,3-Dichloropropane	EPA 8260B	9A23025	200	32	ND	100	1/23/2009	1/23/2009	
2,2-Dichloropropane	EPA 8260B	9A23025	200	34	ND	100	1/23/2009	1/23/2009	
cis-1,3-Dichloropropene	EPA 8260B	9A23025	200	22	ND	100	1/23/2009	1/23/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A23025	200	32	ND	100	1/23/2009	1/23/2009	
1,1-Dichloropropene	EPA 8260B	9A23025	200	28	ND	100	1/23/2009	1/23/2009	
Ethylbenzene	EPA 8260B	9A23025	200	25	440	100	1/23/2009	1/23/2009	
Hexachlorobutadiene	EPA 8260B	9A23025	500	38	ND	100	1/23/2009	1/23/2009	
Isopropylbenzene	EPA 8260B	9A23025	200	25	36	100	1/23/2009	1/23/2009	J
p-Isopropyltoluene	EPA 8260B	9A23025	200	28	ND	100	1/23/2009	1/23/2009	
Methylene chloride	EPA 8260B	9A23025	500	95	ND	100	1/23/2009	1/23/2009	
Naphthalene	EPA 8260B	9A23025	500	41	230	100	1/23/2009	1/23/2009	J

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B0054216.0000
Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-06 (W-10-0109 - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A23025	200	27	51	100	1/23/2009	1/23/2009	J
Styrene	EPA 8260B	9A23025	200	20	ND	100	1/23/2009	1/23/2009	
1,1,2-Tetrachloroethane	EPA 8260B	9A23025	500	27	ND	100	1/23/2009	1/23/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
Tetrachloroethylene	EPA 8260B	9A23025	200	32	ND	100	1/23/2009	1/23/2009	
oluene	EPA 8260B	9A23025	200	36	73	100	1/23/2009	1/23/2009	J
2,3-Trichlorobenzene	EPA 8260B	9A23025	500	30	ND	100	1/23/2009	1/23/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A23025	500	48	ND	100	1/23/2009	1/23/2009	
1,1,1-Trichloroethane	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
1,2-Trichloroethane	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
Trichloroethylene	EPA 8260B	9A23025	200	26	ND	100	1/23/2009	1/23/2009	
Trichlorofluoromethane	EPA 8260B	9A23025	500	34	ND	100	1/23/2009	1/23/2009	
2,3-Trichloropropane	EPA 8260B	9A23025	1000	40	ND	100	1/23/2009	1/23/2009	
2,4-Trimethylbenzene	EPA 8260B	9A23025	200	23	230	100	1/23/2009	1/23/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A23025	200	26	49	100	1/23/2009	1/23/2009	J
inyl chloride	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
p-Xylenes	EPA 8260B	9A23025	200	60	1400	100	1/23/2009	1/23/2009	
o-Xylene	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
Ylenes, Total	EPA 8260B	9A23025	400	90	1400	100	1/23/2009	1/23/2009	
-isopropyl Ether (DIPE)	EPA 8260B	9A23025	500	25	ND	100	1/23/2009	1/23/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A23025	500	28	ND	100	1/23/2009	1/23/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A23025	500	32	ND	100	1/23/2009	1/23/2009	
t-Amyl Methyl Ether (TAME)	EPA 8260B	9A23025	500	33	ND	100	1/23/2009	1/23/2009	
t-Butanol (TBA)	EPA 8260B	9A23025	5000	650	ND	100	1/23/2009	1/23/2009	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>									
<i>Surrogate: Dibromofluoromethane (80-120%)</i>									
<i>Surrogate: Toluene-d8 (80-120%)</i>									
96 %									
96 %									
101 %									

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Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-07 (W-10-0109_D - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	9A23025	200	28	7600	100	1/23/2009	1/23/2009	
Bromobenzene	EPA 8260B	9A23025	500	27	ND	100	1/23/2009	1/23/2009	
Bromoform	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
Bromochloromethane	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
Bromodichloromethane	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
Bromoform	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
Bromomethane	EPA 8260B	9A23025	500	42	ND	100	1/23/2009	1/23/2009	
n-Butylbenzene	EPA 8260B	9A23025	500	37	ND	100	1/23/2009	1/23/2009	
sec-Butylbenzene	EPA 8260B	9A23025	500	25	ND	100	1/23/2009	1/23/2009	
tert-Butylbenzene	EPA 8260B	9A23025	500	22	ND	100	1/23/2009	1/23/2009	
Carbon tetrachloride	EPA 8260B	9A23025	500	28	ND	100	1/23/2009	1/23/2009	
Chlorobenzene	EPA 8260B	9A23025	200	36	ND	100	1/23/2009	1/23/2009	
Chloroethane	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
Chloroform	EPA 8260B	9A23025	200	33	ND	100	1/23/2009	1/23/2009	
Chloromethane	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
2-Chlorotoluene	EPA 8260B	9A23025	500	28	ND	100	1/23/2009	1/23/2009	
4-Chlorotoluene	EPA 8260B	9A23025	500	29	ND	100	1/23/2009	1/23/2009	
1,2-Dibromo-3-chloropropane	EPA 8260B	9A23025	500	97	ND	100	1/23/2009	1/23/2009	
Dibromochloromethane	EPA 8260B	9A23025	200	40	ND	100	1/23/2009	1/23/2009	
1,2-Dibromoethane (EDB)	EPA 8260B	9A23025	200	40	ND	100	1/23/2009	1/23/2009	
Dibromomethane	EPA 8260B	9A23025	200	36	ND	100	1/23/2009	1/23/2009	
1,2-Dichlorobenzene	EPA 8260B	9A23025	200	32	ND	100	1/23/2009	1/23/2009	
1,3-Dichlorobenzene	EPA 8260B	9A23025	200	35	ND	100	1/23/2009	1/23/2009	
1,4-Dichlorobenzene	EPA 8260B	9A23025	200	37	ND	100	1/23/2009	1/23/2009	
Dichlorodifluoromethane	EPA 8260B	9A23025	500	26	ND	100	1/23/2009	1/23/2009	
1,1-Dichloroethane	EPA 8260B	9A23025	200	40	ND	100	1/23/2009	1/23/2009	
1,2-Dichloroethane	EPA 8260B	9A23025	200	28	ND	100	1/23/2009	1/23/2009	
1,1-Dichloroethene	EPA 8260B	9A23025	500	42	ND	100	1/23/2009	1/23/2009	
cis-1,2-Dichloroethene	EPA 8260B	9A23025	200	32	ND	100	1/23/2009	1/23/2009	
trans-1,2-Dichloroethene	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
1,2-Dichloropropane	EPA 8260B	9A23025	200	35	ND	100	1/23/2009	1/23/2009	
1,3-Dichloropropane	EPA 8260B	9A23025	200	32	ND	100	1/23/2009	1/23/2009	
2,2-Dichloropropane	EPA 8260B	9A23025	200	34	ND	100	1/23/2009	1/23/2009	
cis-1,3-Dichloropropene	EPA 8260B	9A23025	200	22	ND	100	1/23/2009	1/23/2009	
trans-1,3-Dichloropropene	EPA 8260B	9A23025	200	32	ND	100	1/23/2009	1/23/2009	
1,1-Dichloropropene	EPA 8260B	9A23025	200	28	ND	100	1/23/2009	1/23/2009	
Ethylbenzene	EPA 8260B	9A23025	200	25	410	100	1/23/2009	1/23/2009	
Hexachlorobutadiene	EPA 8260B	9A23025	500	38	ND	100	1/23/2009	1/23/2009	J
Isopropylbenzene	EPA 8260B	9A23025	200	25	35	100	1/23/2009	1/23/2009	
p-Isopropyltoluene	EPA 8260B	9A23025	200	28	ND	100	1/23/2009	1/23/2009	
Methylene chloride	EPA 8260B	9A23025	500	95	ND	100	1/23/2009	1/23/2009	
Naphthalene	EPA 8260B	9A23025	500	41	230	100	1/23/2009	1/23/2009	J

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B0054216.0000
Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-07 (W-10-0109_D - Water) - cont.									
Reporting Units: ug/l									
n-Propylbenzene	EPA 8260B	9A23025	200	27	49	100	1/23/2009	1/23/2009	J
Styrene	EPA 8260B	9A23025	200	20	ND	100	1/23/2009	1/23/2009	
1,1,2-Tetrachloroethane	EPA 8260B	9A23025	500	27	ND	100	1/23/2009	1/23/2009	
1,1,2,2-Tetrachloroethane	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
Tetrachloroethene	EPA 8260B	9A23025	200	32	ND	100	1/23/2009	1/23/2009	
oluene	EPA 8260B	9A23025	200	36	63	100	1/23/2009	1/23/2009	J
2,3-Trichlorobenzene	EPA 8260B	9A23025	500	30	ND	100	1/23/2009	1/23/2009	
1,2,4-Trichlorobenzene	EPA 8260B	9A23025	500	48	ND	100	1/23/2009	1/23/2009	
1,1-Trichloroethane	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
1,2-Trichloroethane	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
Trichloroethene	EPA 8260B	9A23025	200	26	ND	100	1/23/2009	1/23/2009	
Trichlorofluoromethane	EPA 8260B	9A23025	500	34	ND	100	1/23/2009	1/23/2009	
2,3-Trichloropropane	EPA 8260B	9A23025	1000	40	ND	100	1/23/2009	1/23/2009	
2,4-Trimethylbenzene	EPA 8260B	9A23025	200	23	220	100	1/23/2009	1/23/2009	
1,3,5-Trimethylbenzene	EPA 8260B	9A23025	200	26	45	100	1/23/2009	1/23/2009	J
vinyl chloride	EPA 8260B	9A23025	500	40	ND	100	1/23/2009	1/23/2009	
p-Xylenes	EPA 8260B	9A23025	200	60	1300	100	1/23/2009	1/23/2009	
o-Xylene	EPA 8260B	9A23025	200	30	ND	100	1/23/2009	1/23/2009	
Y xylenes, Total	EPA 8260B	9A23025	400	90	1300	100	1/23/2009	1/23/2009	
-isopropyl Ether (DIPE)	EPA 8260B	9A23025	500	25	ND	100	1/23/2009	1/23/2009	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	9A23025	500	28	ND	100	1/23/2009	1/23/2009	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	9A23025	500	32	ND	100	1/23/2009	1/23/2009	
t-Amyl Methyl Ether (TAME)	EPA 8260B	9A23025	500	33	ND	100	1/23/2009	1/23/2009	
rt-Butanol (TBA)	EPA 8260B	9A23025	5000	650	ND	100	1/23/2009	1/23/2009	
Surrogate: 4-Bromofluorobenzene (80-120%)					97 %				
Surrogate: Dibromofluoromethane (80-120%)					98 %				
Surrogate: Toluene-d8 (80-120%)					98 %				

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Sampled: 01/21/09
Received: 01/21/09

DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-05 (MW-503B-0109 - Water)									
Reporting Units: mg/l									
Methane	RSK-175 MOD.	9A22083	0.0010	0.00030	0.16	1	1/22/2009	1/22/2009	

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INORGANICS

Analyte	Method	Batch	Reporting Limit	MDL	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ISA1789-02 (W-16A-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A21099	0.0020	0.00025	ND	1	1/21/2009	1/21/2009	
Sample ID: ISA1789-03 (W-16B-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A21099	0.0020	0.00025	ND	1	1/21/2009	1/21/2009	
Sample ID: ISA1789-04 (W-16C-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A21099	0.0020	0.00025	ND	1	1/21/2009	1/21/2009	
Sample ID: ISA1789-05 (MW-503B-0109 - Water)									
Reporting Units: mg/l									
Alkalinity as CaCO ₃	SM2320B	9A28037	2.0	2.0	700	1	1/28/2009	1/28/2009	
Ferrous Iron	SM 3500-Fe D	9A22070	0.10	0.10	1.0	1	1/22/2009	1/22/2009	HFT
Chromium VI	EPA 7199	9A21099	0.0020	0.00025	ND	1	1/21/2009	1/21/2009	
Nitrate-N	EPA 300.0	9A21057	0.11	0.060	ND	1	1/21/2009	1/21/2009	
Sulfate	EPA 300.0	9A21057	0.50	0.20	4.4	1	1/21/2009	1/21/2009	
Sample ID: ISA1789-06 (W-10-0109 - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A21099	0.0020	0.00025	ND	1	1/21/2009	1/21/2009	
Sample ID: ISA1789-07 (W-10-0109_D - Water)									
Reporting Units: mg/l									
Chromium VI	EPA 7199	9A21099	0.0020	0.00025	ND	1	1/21/2009	1/21/2009	

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Received: 01/21/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: W-16A-0109 (ISA1789-02) - Water EPA 7199	1	01/21/2009 09:00	01/21/2009 16:40	01/21/2009 19:45	01/21/2009 19:50
Sample ID: W-16B-0109 (ISA1789-03) - Water EPA 7199	1	01/21/2009 10:45	01/21/2009 16:40	01/21/2009 19:45	01/21/2009 20:00
Sample ID: W-16C-0109 (ISA1789-04) - Water EPA 7199	1	01/21/2009 12:45	01/21/2009 16:40	01/21/2009 19:45	01/21/2009 20:11
Sample ID: MW-503B-0109 (ISA1789-05) - Water EPA 300.0	2	01/21/2009 13:45	01/21/2009 16:40	01/21/2009 20:00	01/21/2009 21:25
EPA 7199	1	01/21/2009 13:45	01/21/2009 16:40	01/21/2009 19:45	01/21/2009 20:22
SM 3500-Fe D	1	01/21/2009 13:45	01/21/2009 16:40	01/22/2009 12:00	01/22/2009 12:00
Sample ID: W-10-0109 (ISA1789-06) - Water EPA 7199	1	01/21/2009 14:45	01/21/2009 16:40	01/21/2009 19:45	01/21/2009 20:32
Sample ID: W-10-0109_D (ISA1789-07) - Water EPA 7199	1	01/21/2009 14:45	01/21/2009 16:40	01/21/2009 19:45	01/21/2009 20:43

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Received: 01/21/09

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23033 Extracted: 01/23/09</u>										
Blank Analyzed: 01/23/2009 (9A23033-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)										
Surrogate: 4-BFB (FID)	ND	50	ug/l							
	11.2		ug/l	10.0		112	65-140			
LCS Analyzed: 01/23/2009 (9A23033-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)										
Surrogate: 4-BFB (FID)	884	50	ug/l	800		110	80-120			
	15.3		ug/l	10.0		153	65-140			Z2
Matrix Spike Analyzed: 01/23/2009 (9A23033-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)										
Surrogate: 4-BFB (FID)	294	50	ug/l	220	ND	134	65-140			
	13.1		ug/l	10.0		131	65-140			
Matrix Spike Dup Analyzed: 01/23/2009 (9A23033-MSD1)										
Volatile Fuel Hydrocarbons (C6-C12)										
Surrogate: 4-BFB (FID)	277	50	ug/l	220	ND	126	65-140	6	20	
	11.8		ug/l	10.0		118	65-140			
<u>Batch: 9A24005 Extracted: 01/24/09</u>										
Blank Analyzed: 01/24/2009 (9A24005-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)										
Surrogate: 4-BFB (FID)	ND	50	ug/l							
	9.66		ug/l	10.0		97	65-140			
LCS Analyzed: 01/24/2009 (9A24005-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)										
Surrogate: 4-BFB (FID)	848	50	ug/l	800		106	80-120			
	13.4		ug/l	10.0		134	65-140			
Matrix Spike Analyzed: 01/24/2009 (9A24005-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)										
Surrogate: 4-BFB (FID)	310	50	ug/l	220	44.5	121	65-140			
	9.73		ug/l	10.0		97	65-140			

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Received: 01/21/09

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A24005 Extracted: 01/24/09</u>										
Matrix Spike Dup Analyzed: 01/24/2009 (9A24005-MSD1)										
Source: ISA1669-02										
Volatile Fuel Hydrocarbons (C6-C12)	307	50	ug/l	220	44.5	119	65-140	1	20	
Surrogate: 4-BFB (FID)	10.2		ug/l	10.0		102	65-140			
<u>Batch: 9A25001 Extracted: 01/25/09</u>										
Blank Analyzed: 01/25/2009 (9A25001-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	ug/l							
Surrogate: 4-BFB (FID)	9.73		ug/l	10.0		97	65-140			
LCS Analyzed: 01/25/2009 (9A25001-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	785	50	ug/l	800		98	80-120			
Surrogate: 4-BFB (FID)	12.5		ug/l	10.0		125	65-140			
Matrix Spike Analyzed: 01/25/2009 (9A25001-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)	290	50	ug/l	220	ND	132	65-140			
Surrogate: 4-BFB (FID)	12.8		ug/l	10.0		128	65-140			
Matrix Spike Dup Analyzed: 01/25/2009 (9A25001-MSD1)										
Volatile Fuel Hydrocarbons (C6-C12)	289	50	ug/l	220	ND	132	65-140	0	20	
Surrogate: 4-BFB (FID)	12.2		ug/l	10.0		122	65-140			

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B0054216.0000
Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23025 Extracted: 01/23/09</u>										
Blank Analyzed: 01/23/2009 (9A23025-BLK1)										
Benzene	ND	2.0	ug/l							
Chlorobenzene	ND	5.0	ug/l							
Bromochloromethane	ND	5.0	ug/l							
Bromodichloromethane	ND	2.0	ug/l							
Bromoform	ND	5.0	ug/l							
Bromomethane	ND	5.0	ug/l							
n-Butylbenzene	ND	5.0	ug/l							
c-Butylbenzene	ND	5.0	ug/l							
tert-Butylbenzene	ND	5.0	ug/l							
Carbon tetrachloride	ND	5.0	ug/l							
Chlorobenzene	ND	2.0	ug/l							
Chloroethane	ND	5.0	ug/l							
Chloroform	ND	2.0	ug/l							
Chloromethane	ND	5.0	ug/l							
Chlorotoluene	ND	5.0	ug/l							
4-Chlorotoluene	ND	5.0	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	ug/l							
bromochloromethane	ND	2.0	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	ug/l							
Dibromomethane	ND	2.0	ug/l							
1,1-Dichlorobenzene	ND	2.0	ug/l							
1,1-Dichlorobenzene	ND	2.0	ug/l							
1,4-Dichlorobenzene	ND	2.0	ug/l							
1,1-Chlorodifluoromethane	ND	5.0	ug/l							
-Dichloroethane	ND	2.0	ug/l							
1,2-Dichloroethane	ND	2.0	ug/l							
1,1-Dichloroethene	ND	5.0	ug/l							
-1,2-Dichloroethene	ND	2.0	ug/l							
trans-1,2-Dichloroethene	ND	2.0	ug/l							
1,2-Dichloropropane	ND	2.0	ug/l							
-Dichloropropane	ND	2.0	ug/l							
-Dichloropropene	ND	2.0	ug/l							
cis-1,3-Dichloropropene	ND	2.0	ug/l							
trans-1,3-Dichloropropene	ND	2.0	ug/l							
-Dichloropropene	ND	2.0	ug/l							
Ethylbenzene	ND	2.0	ug/l							

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23025 Extracted: 01/23/09</u>										
Blank Analyzed: 01/23/2009 (9A23025-BLK1)										
Hexachlorobutadiene	ND	5.0	ug/l							
Isopropylbenzene	ND	2.0	ug/l							
p-Isopropyltoluene	ND	2.0	ug/l							
Methylene chloride	ND	5.0	ug/l							
Naphthalene	ND	5.0	ug/l							
n-Propylbenzene	ND	2.0	ug/l							
Styrene	ND	2.0	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	ug/l							
Tetrachloroethene	ND	2.0	ug/l							
Toluene	ND	2.0	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	ug/l							
1,1,1-Trichloroethane	ND	2.0	ug/l							
1,1,2-Trichloroethane	ND	2.0	ug/l							
Trichloroethene	ND	2.0	ug/l							
Trichlorofluoromethane	ND	5.0	ug/l							
1,2,3-Trichloropropane	ND	10	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	ug/l							
Vinyl chloride	ND	5.0	ug/l							
m,p-Xylenes	ND	2.0	ug/l							
o-Xylene	ND	2.0	ug/l							
Xylenes, Total	ND	4.0	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	ug/l							
tert-Butanol (TBA)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	25.1		ug/l	25.0		101	80-120			
Surrogate: Dibromofluoromethane	24.6		ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	25.0		ug/l	25.0		100	80-120			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23025 Extracted: 01/23/09</u>										
LCS Analyzed: 01/23/2009 (9A23025-BS1)										
benzene	24.0	2.0	ug/l	25.0		96	70-120			
bromobenzene	24.3	5.0	ug/l	25.0		97	75-120			
Bromochloromethane	25.4	5.0	ug/l	25.0		101	70-130			
chlorodichloromethane	23.1	2.0	ug/l	25.0		93	70-135			
romoform	24.4	5.0	ug/l	25.0		98	55-130			
Bromomethane	23.3	5.0	ug/l	25.0		93	65-140			
-Butylbenzene	23.2	5.0	ug/l	25.0		93	70-130			
:c-Butylbenzene	24.4	5.0	ug/l	25.0		98	70-125			
tert-Butylbenzene	25.0	5.0	ug/l	25.0		100	70-125			
Carbon tetrachloride	24.4	5.0	ug/l	25.0		97	65-140			
chlorobenzene	25.8	2.0	ug/l	25.0		103	75-120			
chloroethane	24.1	5.0	ug/l	25.0		97	60-140			
Chloroform	21.2	2.0	ug/l	25.0		85	70-130			
chloromethane	18.6	5.0	ug/l	25.0		74	50-140			
Chlorotoluene	23.1	5.0	ug/l	25.0		92	70-125			
4-Chlorotoluene	23.4	5.0	ug/l	25.0		94	75-125			
1,2-Dibromo-3-chloropropane	25.2	5.0	ug/l	25.0		101	50-135			
bromochloromethane	25.2	2.0	ug/l	25.0		101	70-140			
1,2-Dibromoethane (EDB)	25.2	2.0	ug/l	25.0		101	75-125			
Dibromomethane	25.5	2.0	ug/l	25.0		102	70-125			
2-Dichlorobenzene	24.2	2.0	ug/l	25.0		97	75-120			
3-Dichlorobenzene	24.6	2.0	ug/l	25.0		98	75-120			
1,4-Dichlorobenzene	22.0	2.0	ug/l	25.0		88	75-120			
chlorodifluoromethane	21.0	5.0	ug/l	25.0		84	35-155			
1-Dichloroethane	22.4	2.0	ug/l	25.0		90	70-125			
1,2-Dichloroethane	23.5	2.0	ug/l	25.0		94	60-140			
1,1-Dichloroethene	18.0	5.0	ug/l	25.0		72	70-125			
:1,2-Dichloroethene	22.6	2.0	ug/l	25.0		90	70-125			
trans-1,2-Dichloroethene	20.8	2.0	ug/l	25.0		83	70-125			
1,2-Dichloropropane	22.4	2.0	ug/l	25.0		90	70-125			
:1-Dichloropropane	25.2	2.0	ug/l	25.0		101	70-120			
-Dichloropropane	24.6	2.0	ug/l	25.0		98	65-140			
cis-1,3-Dichloropropene	27.4	2.0	ug/l	25.0		110	75-125			
ns-1,3-Dichloropropene	21.7	2.0	ug/l	25.0		87	70-125			
-Dichloropropene	23.9	2.0	ug/l	25.0		96	75-130			
Ethylbenzene	24.4	2.0	ug/l	25.0		97	75-125			

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METHOD/BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23025 Extracted: 01/23/09</u>										
LCS Analyzed: 01/23/2009 (9A23025-BS1)										
Hexachlorobutadiene	24.6	5.0	ug/l	25.0		98	65-135			
Isopropylbenzene	23.8	2.0	ug/l	25.0		95	75-130			
p-Isopropyltoluene	23.6	2.0	ug/l	25.0		94	75-125			
Methylene chloride	25.3	5.0	ug/l	25.0		101	55-130			
Naphthalene	24.2	5.0	ug/l	25.0		97	55-135			
n-Propylbenzene	23.6	2.0	ug/l	25.0		94	75-130			
Styrene	25.4	2.0	ug/l	25.0		102	75-130			
1,1,1,2-Tetrachloroethane	24.1	5.0	ug/l	25.0		96	70-130			
1,1,2,2-Tetrachloroethane	24.4	2.0	ug/l	25.0		98	55-130			
Tetrachloroethene	25.7	2.0	ug/l	25.0		103	70-125			
Toluene	22.9	2.0	ug/l	25.0		92	70-120			
1,2,3-Trichlorobenzene	24.4	5.0	ug/l	25.0		98	65-125			
1,2,4-Trichlorobenzene	25.3	5.0	ug/l	25.0		101	70-135			
1,1,1-Trichloroethane	24.5	2.0	ug/l	25.0		98	65-135			
1,1,2-Trichloroethane	24.1	2.0	ug/l	25.0		97	70-125			
Trichloroethene	24.2	2.0	ug/l	25.0		97	70-125			
Trichlorofluoromethane	22.5	5.0	ug/l	25.0		90	65-145			
1,2,3-Trichloropropane	23.6	10	ug/l	25.0		94	60-130			
1,2,4-Trimethylbenzene	23.0	2.0	ug/l	25.0		92	75-125			
1,3,5-Trimethylbenzene	22.9	2.0	ug/l	25.0		91	75-125			
Vinyl chloride	22.3	5.0	ug/l	25.0		89	55-135			
m,p-Xylenes	51.9	2.0	ug/l	50.0		104	75-125			
o-Xylene	26.1	2.0	ug/l	25.0		105	75-125			
Xylenes, Total	78.0	4.0	ug/l	75.0		104	70-125			
Di-isopropyl Ether (DIPE)	24.1	5.0	ug/l	25.0		96	60-135			
Ethyl tert-Butyl Ether (ETBE)	23.9	5.0	ug/l	25.0		95	65-135			
Methyl-tert-butyl Ether (MTBE)	23.7	5.0	ug/l	25.0		95	60-135			
tert-Amyl Methyl Ether (TAME)	25.3	5.0	ug/l	25.0		101	60-135			
tert-Butanol (TBA)	119	50	ug/l	125		95	70-135			
Surrogate: 4-Bromofluorobenzene	25.5		ug/l	25.0		102	80-120			
Surrogate: Dibromofluoromethane	24.1		ug/l	25.0		96	80-120			
Surrogate: Toluene-d8	25.3		ug/l	25.0		101	80-120			

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VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers																																																																																																																																																																																																																																																																																																																																																																																																																							
<u>Batch: 9A23025 Extracted: 01/23/09</u>																																																																																																																																																																																																																																																																																																																																																																																																																																	
Matrix Spike Analyzed: 01/23/2009 (9A23025-MS1)																																																																																																																																																																																																																																																																																																																																																																																																																																	
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<table border="1"><thead><tr><th>Analyte</th><th>Result</th><th>Reporting Limit</th><th>Units</th><th>Spike Level</th><th>Source Result</th><th>%REC</th><th>%REC Limits</th><th>RPD RPD</th><th>RPD Limit</th><th>Data Qualifiers</th></tr></thead><tbody><tr><td>Benzene</td><td>116</td><td>8.0</td><td>ug/l</td><td>100</td><td>28.2</td><td>88</td><td>65-125</td><td></td><td></td><td></td></tr><tr><td>Bromobenzene</td><td>92.6</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>93</td><td>70-125</td><td></td><td></td><td></td></tr><tr><td>Bromochloromethane</td><td>101</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>101</td><td>65-135</td><td></td><td></td><td></td></tr><tr><td>Chlorodichloromethane</td><td>91.0</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>91</td><td>70-135</td><td></td><td></td><td></td></tr><tr><td>Chloroform</td><td>90.9</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>91</td><td>55-135</td><td></td><td></td><td></td></tr><tr><td>Bromomethane</td><td>89.1</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>89</td><td>55-145</td><td></td><td></td><td></td></tr><tr><td>Isobutylbenzene</td><td>89.5</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>90</td><td>65-135</td><td></td><td></td><td></td></tr><tr><td>c-Butylbenzene</td><td>93.8</td><td>20</td><td>ug/l</td><td>100</td><td>2.68</td><td>91</td><td>70-125</td><td></td><td></td><td></td></tr><tr><td>tert-Butylbenzene</td><td>93.3</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>93</td><td>65-130</td><td></td><td></td><td></td></tr><tr><td>Carbon tetrachloride</td><td>92.0</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>92</td><td>65-140</td><td></td><td></td><td></td></tr><tr><td>Chlorobenzene</td><td>99.7</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>100</td><td>75-125</td><td></td><td></td><td></td></tr><tr><td>Chloroethane</td><td>95.2</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>95</td><td>55-140</td><td></td><td></td><td></td></tr><tr><td>Chloroform</td><td>82.5</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>83</td><td>65-135</td><td></td><td></td><td></td></tr><tr><td>Chloromethane</td><td>70.0</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>70</td><td>45-145</td><td></td><td></td><td></td></tr><tr><td>Chlorotoluene</td><td>88.0</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>88</td><td>65-135</td><td></td><td></td><td></td></tr><tr><td>4-Chlorotoluene</td><td>90.6</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>91</td><td>70-135</td><td></td><td></td><td></td></tr><tr><td>1,2-Dibromo-3-chloropropane</td><td>94.2</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>94</td><td>45-145</td><td></td><td></td><td></td></tr><tr><td>bromochloromethane</td><td>94.6</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>95</td><td>65-140</td><td></td><td></td><td></td></tr><tr><td>1,2-Dibromoethane (EDB)</td><td>93.2</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>93</td><td>70-130</td><td></td><td></td><td></td></tr><tr><td>Dibromomethane</td><td>99.8</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>100</td><td>65-135</td><td></td><td></td><td></td></tr><tr><td>-Dichlorobenzene</td><td>94.5</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>94</td><td>75-125</td><td></td><td></td><td></td></tr><tr><td>-Dichlorobenzene</td><td>91.8</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>92</td><td>75-125</td><td></td><td></td><td></td></tr><tr><td>1,4-Dichlorobenzene</td><td>84.4</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>84</td><td>75-125</td><td></td><td></td><td></td></tr><tr><td>Chlorodifluoromethane</td><td>77.0</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>77</td><td>25-155</td><td></td><td></td><td></td></tr><tr><td>-Dichloroethane</td><td>90.9</td><td>8.0</td><td>ug/l</td><td>100</td><td>2.52</td><td>88</td><td>65-130</td><td></td><td></td><td></td></tr><tr><td>1,2-Dichloroethane</td><td>93.7</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>94</td><td>60-140</td><td></td><td></td><td></td></tr><tr><td>-Dichloroethene</td><td>71.1</td><td>20</td><td>ug/l</td><td>100</td><td>ND</td><td>71</td><td>60-130</td><td></td><td></td><td></td></tr><tr><td>-1,2-Dichloroethene</td><td>87.7</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>88</td><td>65-130</td><td></td><td></td><td></td></tr><tr><td>trans-1,2-Dichloroethene</td><td>79.2</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>79</td><td>65-130</td><td></td><td></td><td></td></tr><tr><td>1,2-Dichloropropane</td><td>88.8</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>89</td><td>65-130</td><td></td><td></td><td></td></tr><tr><td>-Dichloropropane</td><td>96.3</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>96</td><td>65-135</td><td></td><td></td><td></td></tr><tr><td>-Dichloropropane</td><td>98.6</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>99</td><td>60-145</td><td></td><td></td><td></td></tr><tr><td>cis-1,3-Dichloropropene</td><td>108</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>108</td><td>70-130</td><td></td><td></td><td></td></tr><tr><td>trans-1,3-Dichloropropene</td><td>87.2</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>87</td><td>65-135</td><td></td><td></td><td></td></tr><tr><td>-Dichloropropene</td><td>91.5</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>92</td><td>70-135</td><td></td><td></td><td></td></tr><tr><td>Ethylbenzene</td><td>90.0</td><td>8.0</td><td>ug/l</td><td>100</td><td>ND</td><td>90</td><td>65-130</td><td></td><td></td><td></td></tr></tbody></table>											Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers	Benzene	116	8.0	ug/l	100	28.2	88	65-125				Bromobenzene	92.6	20	ug/l	100	ND	93	70-125				Bromochloromethane	101	20	ug/l	100	ND	101	65-135				Chlorodichloromethane	91.0	8.0	ug/l	100	ND	91	70-135				Chloroform	90.9	20	ug/l	100	ND	91	55-135				Bromomethane	89.1	20	ug/l	100	ND	89	55-145				Isobutylbenzene	89.5	20	ug/l	100	ND	90	65-135				c-Butylbenzene	93.8	20	ug/l	100	2.68	91	70-125				tert-Butylbenzene	93.3	20	ug/l	100	ND	93	65-130				Carbon tetrachloride	92.0	20	ug/l	100	ND	92	65-140				Chlorobenzene	99.7	8.0	ug/l	100	ND	100	75-125				Chloroethane	95.2	20	ug/l	100	ND	95	55-140				Chloroform	82.5	8.0	ug/l	100	ND	83	65-135				Chloromethane	70.0	20	ug/l	100	ND	70	45-145				Chlorotoluene	88.0	20	ug/l	100	ND	88	65-135				4-Chlorotoluene	90.6	20	ug/l	100	ND	91	70-135				1,2-Dibromo-3-chloropropane	94.2	20	ug/l	100	ND	94	45-145				bromochloromethane	94.6	8.0	ug/l	100	ND	95	65-140				1,2-Dibromoethane (EDB)	93.2	8.0	ug/l	100	ND	93	70-130				Dibromomethane	99.8	8.0	ug/l	100	ND	100	65-135				-Dichlorobenzene	94.5	8.0	ug/l	100	ND	94	75-125				-Dichlorobenzene	91.8	8.0	ug/l	100	ND	92	75-125				1,4-Dichlorobenzene	84.4	8.0	ug/l	100	ND	84	75-125				Chlorodifluoromethane	77.0	20	ug/l	100	ND	77	25-155				-Dichloroethane	90.9	8.0	ug/l	100	2.52	88	65-130				1,2-Dichloroethane	93.7	8.0	ug/l	100	ND	94	60-140				-Dichloroethene	71.1	20	ug/l	100	ND	71	60-130				-1,2-Dichloroethene	87.7	8.0	ug/l	100	ND	88	65-130				trans-1,2-Dichloroethene	79.2	8.0	ug/l	100	ND	79	65-130				1,2-Dichloropropane	88.8	8.0	ug/l	100	ND	89	65-130				-Dichloropropane	96.3	8.0	ug/l	100	ND	96	65-135				-Dichloropropane	98.6	8.0	ug/l	100	ND	99	60-145				cis-1,3-Dichloropropene	108	8.0	ug/l	100	ND	108	70-130				trans-1,3-Dichloropropene	87.2	8.0	ug/l	100	ND	87	65-135				-Dichloropropene	91.5	8.0	ug/l	100	ND	92	70-135				Ethylbenzene	90.0	8.0	ug/l	100	ND	90	65-130			
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers																																																																																																																																																																																																																																																																																																																																																																																																																							
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TestAmerica Irvine

Nishmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054216.0000
Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

METHOD/BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23025 Extracted: 01/23/09</u>										
Matrix Spike Analyzed: 01/23/2009 (9A23025-MS1)										
Source: ISA1789-02										
Hexachlorobutadiene	97.0	20	ug/l	100	ND	97	60-135			
Isopropylbenzene	95.6	8.0	ug/l	100	8.48	87	70-135			
p-Isopropyltoluene	86.5	8.0	ug/l	100	ND	86	65-130			
Methylene chloride	100	20	ug/l	100	ND	100	50-135			
Naphthalene	96.2	20	ug/l	100	ND	96	50-140			
n-Propylbenzene	93.4	8.0	ug/l	100	3.76	90	70-135			
Styrene	97.2	8.0	ug/l	100	ND	97	50-145			
1,1,1,2-Tetrachloroethane	92.8	20	ug/l	100	ND	93	65-140			
1,1,2,2-Tetrachloroethane	93.4	8.0	ug/l	100	ND	93	55-135			
Tetrachloroethene	94.6	8.0	ug/l	100	ND	95	65-130			
Toluene	90.8	8.0	ug/l	100	ND	91	70-125			
1,2,3-Trichlorobenzene	97.0	20	ug/l	100	ND	97	60-135			
1,2,4-Trichlorobenzene	98.4	20	ug/l	100	ND	98	65-135			
1,1,1-Trichloroethane	94.4	8.0	ug/l	100	ND	94	65-140			
1,1,2-Trichloroethane	93.9	8.0	ug/l	100	ND	94	65-130			
Trichloroethene	94.5	8.0	ug/l	100	1.44	93	65-125			
Trichlorofluoromethane	87.7	20	ug/l	100	ND	88	60-145			
1,2,3-Trichloropropane	89.3	40	ug/l	100	ND	89	55-135			
1,2,4-Trimethylbenzene	86.7	8.0	ug/l	100	ND	87	55-135			
1,3,5-Trimethylbenzene	85.3	8.0	ug/l	100	ND	85	70-130			
Vinyl chloride	90.8	20	ug/l	100	6.96	84	45-140			
m,p-Xylenes	192	8.0	ug/l	200	ND	96	65-130			
o-Xylene	99.5	8.0	ug/l	100	ND	100	65-125			
Xylenes, Total	292	16	ug/l	300	ND	97	60-130			
Di-isopropyl Ether (DIPE)	94.0	20	ug/l	100	ND	94	60-140			
Ethyl tert-Butyl Ether (ETBE)	94.1	20	ug/l	100	ND	94	60-135			
Methyl-tert-butyl Ether (MTBE)	93.6	20	ug/l	100	ND	94	55-145			
tert-Amyl Methyl Ether (TAME)	98.2	20	ug/l	100	ND	98	60-140			
tert-Butanol (TBA)	466	200	ug/l	500	28.9	87	65-140			
Surrogate: 4-Bromofluorobenzene	101		ug/l	100		101	80-120			
Surrogate: Dibromofluoromethane	97.4		ug/l	100		97	80-120			
Surrogate: Toluene-d8	101		ug/l	100		101	80-120			

TestAmerica Irvine

Sushmitha Reddy
Project Manager

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054216.0000
Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23025 Extracted: 01/23/09</u>										
Matrix Spike Dup Analyzed: 01/23/2009 (9A23025-MSD1)										
Source: ISA1789-02										
benzene										
117 8.0 ug/l 100 28.2 88 65-125 1 20										
bromobenzene										
96.7 20 ug/l 100 ND 97 70-125 4 20										
bromochloromethane										
97.2 20 ug/l 100 ND 97 65-135 3 25										
chlorodichloromethane										
89.1 8.0 ug/l 100 ND 89 70-135 2 20										
chloroform										
88.4 20 ug/l 100 ND 88 55-135 3 25										
bromomethane										
88.8 20 ug/l 100 ND 89 55-145 0 25										
trans-1-butylbenzene										
90.2 20 ug/l 100 ND 90 65-135 1 20										
c-Butylbenzene										
97.0 20 ug/l 100 2.68 94 70-125 3 20										
tert-Butylbenzene										
96.6 20 ug/l 100 ND 97 65-130 3 20										
Carbon tetrachloride										
89.9 20 ug/l 100 ND 90 65-140 2 25										
chlorobenzene										
99.0 8.0 ug/l 100 ND 99 75-125 1 20										
chloroethane										
95.2 20 ug/l 100 ND 95 55-140 0 25										
Chloroform										
80.8 8.0 ug/l 100 ND 81 65-135 2 20										
chloromethane										
71.3 20 ug/l 100 ND 71 45-145 2 25										
Chlorotoluene										
90.7 20 ug/l 100 ND 91 65-135 3 20										
4-Chlorotoluene										
92.9 20 ug/l 100 ND 93 70-135 3 20										
1,2-Dibromo-3-chloropropane										
91.8 20 ug/l 100 ND 92 45-145 3 30										
1,2-Dibromoethane (EDB)										
90.6 8.0 ug/l 100 ND 91 65-140 4 25										
Dibromomethane										
94.5 8.0 ug/l 100 ND 95 65-135 5 25										
2-Dichlorobenzene										
96.7 8.0 ug/l 100 ND 97 75-125 2 20										
1,3-Dichlorobenzene										
95.7 8.0 ug/l 100 ND 96 75-125 4 20										
1,4-Dichlorobenzene										
87.4 8.0 ug/l 100 ND 87 75-125 3 20										
chlorodifluoromethane										
81.0 20 ug/l 100 ND 81 25-155 5 30										
1,1-Dichloroethane										
89.1 8.0 ug/l 100 2.52 87 65-130 2 20										
1,2-Dichloroethane										
88.7 8.0 ug/l 100 ND 89 60-140 5 20										
1,1-Dichloroethene										
71.4 20 ug/l 100 ND 71 60-130 0 20										
trans-1,2-Dichloroethene										
88.9 8.0 ug/l 100 ND 89 65-130 1 20										
1,2-Dichloropropene										
79.0 8.0 ug/l 100 ND 79 65-130 0 20										
1,1-Dichloropropene										
89.9 8.0 ug/l 100 ND 90 65-130 1 20										
1,3-Dichloropropene										
91.6 8.0 ug/l 100 ND 92 65-135 5 25										
1,2-Dichloropropene										
97.4 8.0 ug/l 100 ND 97 60-145 1 25										
cis-1,3-Dichloropropene										
105 8.0 ug/l 100 ND 105 70-130 3 20										
trans-1,3-Dichloropropene										
82.4 8.0 ug/l 100 ND 82 65-135 6 25										
1,1-Dichloropropene										
91.4 8.0 ug/l 100 ND 91 70-135 0 20										
Ethylbenzene										
91.4 8.0 ug/l 100 ND 91 65-130 2 20										

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Kushmitha Reddy
Project Manager

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Arcadis Blasland, Bouck & Lee - Glendale
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Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054216.0000
Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23025 Extracted: 01/23/09</u>										
Matrix Spike Dup Analyzed: 01/23/2009 (9A23025-MSD1)										
Source: ISA1789-02										
Hexachlorobutadiene	96.8	20	ug/l	100	ND	97	60-135	0	20	
Isopropylbenzene	99.6	8.0	ug/l	100	8.48	91	70-135	4	20	
p-Isopropyltoluene	91.6	8.0	ug/l	100	ND	92	65-130	6	20	
Methylene chloride	99.2	20	ug/l	100	ND	99	50-135	1	20	
Naphthalene	96.4	20	ug/l	100	ND	96	50-140	0	30	
n-Propylbenzene	97.7	8.0	ug/l	100	3.76	94	70-135	5	20	
Styrene	95.5	8.0	ug/l	100	ND	96	50-145	2	30	
1,1,1,2-Tetrachloroethane	91.8	20	ug/l	100	ND	92	65-140	1	20	
1,1,2,2-Tetrachloroethane	94.2	8.0	ug/l	100	ND	94	55-135	1	30	
Tetrachloroethene	93.6	8.0	ug/l	100	ND	94	65-130	1	20	
Toluene	89.5	8.0	ug/l	100	ND	89	70-125	1	20	
1,2,3-Trichlorobenzene	96.1	20	ug/l	100	ND	96	60-135	1	20	
1,2,4-Trichlorobenzene	98.9	20	ug/l	100	ND	99	65-135	1	20	
1,1,1-Trichloroethane	91.6	8.0	ug/l	100	ND	92	65-140	3	20	
1,1,2-Trichloroethane	92.4	8.0	ug/l	100	ND	92	65-130	2	25	
Trichloroethene	93.9	8.0	ug/l	100	1.44	92	65-125	1	20	
Trichlorofluoromethane	81.5	20	ug/l	100	ND	82	60-145	7	25	
1,2,3-Trichloropropane	91.0	40	ug/l	100	ND	91	55-135	2	30	
1,2,4-Trimethylbenzene	90.7	8.0	ug/l	100	ND	91	55-135	5	25	
1,3,5-Trimethylbenzene	88.2	8.0	ug/l	100	ND	88	70-130	3	20	
Vinyl chloride	90.6	20	ug/l	100	6.96	84	45-140	0	30	
m,p-Xylenes	194	8.0	ug/l	200	ND	97	65-130	1	25	
o-Xylene	97.0	8.0	ug/l	100	ND	97	65-125	3	20	
Xylenes, Total	291	16	ug/l	300	ND	97	60-130	0	20	
Di-isopropyl Ether (DIPE)	92.8	20	ug/l	100	ND	93	60-140	1	25	
Ethyl tert-Butyl Ether (ETBE)	93.0	20	ug/l	100	ND	93	60-135	1	25	
Methyl-tert-butyl Ether (MTBE)	88.6	20	ug/l	100	ND	89	55-145	5	25	
tert-Amyl Methyl Ether (TAME)	96.7	20	ug/l	100	ND	97	60-140	2	30	
tert-Butanol (TBA)	474	200	ug/l	500	28.9	89	65-140	2	25	
<i>Surrogate: 4-Bromofluorobenzene</i>	98.5		ug/l	100		99	80-120			
<i>Surrogate: Dibromofluoromethane</i>	95.1		ug/l	100		95	80-120			
<i>Surrogate: Toluene-d8</i>	99.4		ug/l	100		99	80-120			

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Sushmitha Reddy
Project Manager

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ISA1789 <Page 30 of 44>

Arcadis Blasland, Bouck & Lee - Glendale
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Attention: Leah Levy

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23031 Extracted: 01/23/09</u>										
Blank Analyzed: 01/23/2009 (9A23031-BLK1)										
benzene	ND	2.0	ug/l							
Bromobenzene	ND	5.0	ug/l							
Bromochloromethane	ND	5.0	ug/l							
bromodichloromethane	ND	2.0	ug/l							
bromoform	ND	5.0	ug/l							
Bromomethane	ND	5.0	ug/l							
Butylbenzene	ND	5.0	ug/l							
c-Butylbenzene	ND	5.0	ug/l							
tert-Butylbenzene	ND	5.0	ug/l							
Carbon tetrachloride	ND	5.0	ug/l							
chlorobenzene	ND	2.0	ug/l							
Chloroethane	ND	5.0	ug/l							
Chloroform	ND	2.0	ug/l							
chloromethane	ND	5.0	ug/l							
Chlorotoluene	ND	5.0	ug/l							
4-Chlorotoluene	ND	5.0	ug/l							
2-Dibromo-3-chloropropane	ND	5.0	ug/l							
bromochloromethane	ND	2.0	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	ug/l							
Dibromomethane	ND	2.0	ug/l							
2-Dichlorobenzene	ND	2.0	ug/l							
1,3-Dichlorobenzene	ND	2.0	ug/l							
1,4-Dichlorobenzene	ND	2.0	ug/l							
chlorodifluoromethane	ND	5.0	ug/l							
1-Dichloroethane	ND	2.0	ug/l							
1,2-Dichloroethane	ND	2.0	ug/l							
1,1-Dichloroethene	ND	5.0	ug/l							
trans-1,2-Dichloroethene	ND	2.0	ug/l							
1,2-Dichloropropane	ND	2.0	ug/l							
1,3-Dichloropropane	ND	2.0	ug/l							
2,2-Dichloropropane	ND	2.0	ug/l							
cis-1,3-Dichloropropene	ND	2.0	ug/l							
trans-1,3-Dichloropropene	ND	2.0	ug/l							
1,1-Dichloropropene	ND	2.0	ug/l							
Ethylbenzene	ND	2.0	ug/l							

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23031 Extracted: 01/23/09</u>										
Blank Analyzed: 01/23/2009 (9A23031-BLK1)										
Hexachlorobutadiene	ND	5.0	ug/l							
Isopropylbenzene	ND	2.0	ug/l							
p-Isopropyltoluene	ND	2.0	ug/l							
Methylene chloride	ND	5.0	ug/l							
Naphthalene	ND	5.0	ug/l							
n-Propylbenzene	ND	2.0	ug/l							
Styrene	ND	2.0	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	ug/l							
Tetrachloroethene	ND	2.0	ug/l							
Toluene	ND	2.0	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	ug/l							
1,1,1-Trichloroethane	ND	2.0	ug/l							
1,1,2-Trichloroethane	ND	2.0	ug/l							
Trichloroethene	ND	2.0	ug/l							
Trichlorofluoromethane	ND	5.0	ug/l							
1,2,3-Trichloropropane	ND	10	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	ug/l							
Vinyl chloride	ND	5.0	ug/l							
m,p-Xylenes	ND	2.0	ug/l							
o-Xylene	ND	2.0	ug/l							
Xylenes, Total	ND	4.0	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	ug/l							
tert-Butanol (TBA)	ND	50	ug/l							
<i>Surrogate: 4-Bromofluorobenzene</i>	23.1		ug/l	25.0		92	80-120			
<i>Surrogate: Dibromofluoromethane</i>	22.9		ug/l	25.0		91	80-120			
<i>Surrogate: Toluene-d8</i>	25.9		ug/l	25.0		104	80-120			

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Project ID: Former Cenco Refinery
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Sampled: 01/21/09
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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23031 Extracted: 01/23/09</u>										
I CS Analyzed: 01/23/2009 (9A23031-BS1)										
Benzene	26.2	2.0	ug/l	25.0		105	70-120			
Bromobenzene	26.5	5.0	ug/l	25.0		106	75-120			
Bromochloromethane	25.9	5.0	ug/l	25.0		103	70-130			
1,1-Dichloromethane	25.6	2.0	ug/l	25.0		103	70-135			
Chloroform	20.3	5.0	ug/l	25.0		81	55-130			
Bromomethane	23.4	5.0	ug/l	25.0		94	65-140			
1-Butylbenzene	28.8	5.0	ug/l	25.0		115	70-130			
c-Butylbenzene	28.6	5.0	ug/l	25.0		114	70-125			
tert-Butylbenzene	28.0	5.0	ug/l	25.0		112	70-125			
Carbon tetrachloride	27.2	5.0	ug/l	25.0		109	65-140			
Chlorobenzene	26.6	2.0	ug/l	25.0		106	75-120			
Chloroethane	23.8	5.0	ug/l	25.0		95	60-140			
Chloroform	24.6	2.0	ug/l	25.0		98	70-130			
Chloromethane	23.0	5.0	ug/l	25.0		92	50-140			
Chlorotoluene	27.9	5.0	ug/l	25.0		112	70-125			
4-Chlorotoluene	28.5	5.0	ug/l	25.0		114	75-125			
2-Dibromo-3-chloropropane	23.0	5.0	ug/l	25.0		92	50-135			
1,1-Dichloromethane	22.3	2.0	ug/l	25.0		89	70-140			
1,2-Dibromoethane (EDB)	23.8	2.0	ug/l	25.0		95	75-125			
Dibromomethane	25.1	2.0	ug/l	25.0		100	70-125			
1,1-Dichlorobenzene	26.6	2.0	ug/l	25.0		106	75-120			
1,2-Dichlorobenzene	26.9	2.0	ug/l	25.0		108	75-120			
1,4-Dichlorobenzene	22.8	2.0	ug/l	25.0		91	75-120			
1,1-Dichlorodifluoromethane	26.0	5.0	ug/l	25.0		104	35-155			
1,1-Dichloroethane	27.4	2.0	ug/l	25.0		110	70-125			
1,2-Dichloroethane	25.1	2.0	ug/l	25.0		100	60-140			
1,1-Dichloroethene	20.3	5.0	ug/l	25.0		81	70-125			
1,1,2-Dichloroethene	25.9	2.0	ug/l	25.0		104	70-125			
trans-1,2-Dichloroethene	23.4	2.0	ug/l	25.0		94	70-125			
1,2-Dichloropropane	26.8	2.0	ug/l	25.0		107	70-125			
1,1-Dichloropropane	26.5	2.0	ug/l	25.0		106	70-120			
1,1-Dichloropropane	27.5	2.0	ug/l	25.0		110	65-140			
cis-1,3-Dichloropropene	32.7	2.0	ug/l	25.0		131	75-125			L
trans-1,3-Dichloropropene	25.7	2.0	ug/l	25.0		103	70-125			
-Dichloropropene	27.7	2.0	ug/l	25.0		111	75-130			
Ethylbenzene	28.5	2.0	ug/l	25.0		114	75-125			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23031 Extracted: 01/23/09</u>										
LCS Analyzed: 01/23/2009 (9A23031-BS1)										
Hexachlorobutadiene	25.1	5.0	ug/l	25.0		100	65-135			
Isopropylbenzene	28.6	2.0	ug/l	25.0		114	75-130			
p-Isopropyltoluene	27.0	2.0	ug/l	25.0		108	75-125			
Methylene chloride	28.9	5.0	ug/l	25.0		115	55-130			
Naphthalene	27.0	5.0	ug/l	25.0		108	55-135			
n-Propylbenzene	29.5	2.0	ug/l	25.0		118	75-130			
Styrene	29.1	2.0	ug/l	25.0		116	75-130			
1,1,1,2-Tetrachloroethane	25.1	5.0	ug/l	25.0		100	70-130			
1,1,2,2-Tetrachloroethane	28.9	2.0	ug/l	25.0		116	55-130			
Tetrachloroethene	25.2	2.0	ug/l	25.0		101	70-125			
Toluene	26.6	2.0	ug/l	25.0		106	70-120			
1,2,3-Trichlorobenzene	26.6	5.0	ug/l	25.0		106	65-125			
1,2,4-Trichlorobenzene	26.6	5.0	ug/l	25.0		107	70-135			
1,1,1-Trichloroethane	26.2	2.0	ug/l	25.0		105	65-135			
1,1,2-Trichloroethane	26.4	2.0	ug/l	25.0		106	70-125			
Trichloroethene	25.5	2.0	ug/l	25.0		102	70-125			
Trichlorofluoromethane	22.6	5.0	ug/l	25.0		90	65-145			
1,2,3-Trichloropropane	26.5	10	ug/l	25.0		106	60-130			
1,2,4-Trimethylbenzene	28.4	2.0	ug/l	25.0		114	75-125			
1,3,5-Trimethylbenzene	28.3	2.0	ug/l	25.0		113	75-125			
Vinyl chloride	24.2	5.0	ug/l	25.0		97	55-135			
m,p-Xylenes	56.9	2.0	ug/l	50.0		114	75-125			
o-Xylene	27.7	2.0	ug/l	25.0		111	75-125			
Xylenes, Total	84.6	4.0	ug/l	75.0		113	70-125			
Di-isopropyl Ether (DIPE)	27.2	5.0	ug/l	25.0		109	60-135			
Ethyl tert-Butyl Ether (ETBE)	28.3	5.0	ug/l	25.0		113	65-135			
Methyl-tert-butyl Ether (MTBE)	27.8	5.0	ug/l	25.0		111	60-135			
tert-Amyl Methyl Ether (TAME)	29.7	5.0	ug/l	25.0		119	60-135			
tert-Butanol (TBA)	141	50	ug/l	125		113	70-135			
Surrogate: 4-Bromofluorobenzene	24.0		ug/l	25.0		96	80-120			
Surrogate: Dibromofluoromethane	24.4		ug/l	25.0		98	80-120			
Surrogate: Toluene-d8	25.6		ug/l	25.0		102	80-120			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23031 Extracted: 01/23/09</u>										
Matrix Spike Analyzed: 01/23/2009 (9A23031-MS1)										
Source: ISA1878-02										
benzene 25.2 2.0 ug/l 25.0 ND 101 65-125										
Bromobenzene 25.1 5.0 ug/l 25.0 ND 101 70-125										
Bromochloromethane 24.6 5.0 ug/l 25.0 ND 99 65-135										
1,1-Dichloromethane 24.6 2.0 ug/l 25.0 ND 98 70-135										
Chloroform 19.2 5.0 ug/l 25.0 ND 77 55-135										
Bromomethane 23.2 5.0 ug/l 25.0 ND 93 55-145										
Butylbenzene 27.9 5.0 ug/l 25.0 ND 112 65-135										
c-Butylbenzene 28.0 5.0 ug/l 25.0 ND 112 70-125										
tert-Butylbenzene 27.8 5.0 ug/l 25.0 ND 111 65-130										
Carbon tetrachloride 26.1 5.0 ug/l 25.0 ND 104 65-140										
Dichlorobenzene 26.0 2.0 ug/l 25.0 ND 104 75-125										
Chloroethane 22.3 5.0 ug/l 25.0 ND 89 55-140										
Chloroform 23.9 2.0 ug/l 25.0 ND 95 65-135										
Chloromethane 21.8 5.0 ug/l 25.0 ND 87 45-145										
Chlorotoluene 26.9 5.0 ug/l 25.0 ND 108 65-135										
4-Chlorotoluene 27.7 5.0 ug/l 25.0 ND 111 70-135										
2-Dibromo-3-chloropropane 21.4 5.0 ug/l 25.0 ND 86 45-145										
1,1-Dibromochloromethane 21.1 2.0 ug/l 25.0 ND 85 65-140										
1,2-Dibromoethane (EDB) 23.0 2.0 ug/l 25.0 ND 92 70-130										
Dibromomethane 24.2 2.0 ug/l 25.0 ND 97 65-135										
1,1-Dichlorobenzene 25.7 2.0 ug/l 25.0 ND 103 75-125										
1,2-Dichlorobenzene 26.1 2.0 ug/l 25.0 ND 104 75-125										
1,4-Dichlorobenzene 22.1 2.0 ug/l 25.0 ND 89 75-125										
1,1-Chlorodifluoromethane 22.0 5.0 ug/l 25.0 ND 88 25-155										
1,1-Dichloroethane 26.6 2.0 ug/l 25.0 ND 106 65-130										
1,2-Dichloroethane 24.2 2.0 ug/l 25.0 ND 97 60-140										
1,1-Dichloroethene 19.8 5.0 ug/l 25.0 ND 79 60-130										
trans-1,2-Dichloroethene 25.4 2.0 ug/l 25.0 ND 102 65-130										
trans-1,2-Dichloroethene 22.5 2.0 ug/l 25.0 ND 90 65-130										
1,2-Dichloropropane 25.8 2.0 ug/l 25.0 ND 103 65-130										
1,1-Dichloropropane 25.9 2.0 ug/l 25.0 ND 104 65-135										
2,2-Dichloropropane 26.8 2.0 ug/l 25.0 ND 107 60-145										
cis-1,3-Dichloropropene 31.7 2.0 ug/l 25.0 ND 127 70-130										
trans-1,3-Dichloropropene 23.8 2.0 ug/l 25.0 ND 95 65-135										
-Dichloropropene 26.8 2.0 ug/l 25.0 ND 107 70-135										
Ethylbenzene 27.4 2.0 ug/l 25.0 ND 110 65-130										

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B0054216.0000
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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23031 Extracted: 01/23/09</u>										
Matrix Spike Analyzed: 01/23/2009 (9A23031-MS1)										
Source: ISA1878-02										
Hexachlorobutadiene	23.9	5.0	ug/l	25.0	ND	96	60-135			
Isopropylbenzene	27.2	2.0	ug/l	25.0	ND	109	70-135			
p-Isopropyltoluene	25.6	2.0	ug/l	25.0	ND	103	65-130			
Methylene chloride	28.9	5.0	ug/l	25.0	ND	116	50-135			
Naphthalene	25.6	5.0	ug/l	25.0	ND	102	50-140			
n-Propylbenzene	29.3	2.0	ug/l	25.0	ND	117	70-135			
Styrene	27.6	2.0	ug/l	25.0	ND	110	50-145			
1,1,1,2-Tetrachloroethane	24.1	5.0	ug/l	25.0	ND	97	65-140			
1,1,2,2-Tetrachloroethane	27.3	2.0	ug/l	25.0	ND	109	55-135			
Tetrachloroethene	24.2	2.0	ug/l	25.0	ND	97	65-130			
Toluene	26.4	2.0	ug/l	25.0	ND	106	70-125			
1,2,3-Trichlorobenzene	25.0	5.0	ug/l	25.0	ND	100	60-135			
1,2,4-Trichlorobenzene	25.4	5.0	ug/l	25.0	ND	102	65-135			
1,1,1-Trichloroethane	26.2	2.0	ug/l	25.0	ND	105	65-140			
1,1,2-Trichloroethane	25.5	2.0	ug/l	25.0	ND	102	65-130			
Trichloroethene	24.9	2.0	ug/l	25.0	ND	99	65-125			
Trichlorofluoromethane	22.1	5.0	ug/l	25.0	ND	88	60-145			
1,2,3-Trichloropropane	25.3	10	ug/l	25.0	ND	101	55-135			
1,2,4-Trimethylbenzene	27.6	2.0	ug/l	25.0	ND	110	55-135			
1,3,5-Trimethylbenzene	26.9	2.0	ug/l	25.0	ND	108	70-130			
Vinyl chloride	22.6	5.0	ug/l	25.0	ND	90	45-140			
m,p-Xylenes	54.8	2.0	ug/l	50.0	ND	110	65-130			
o-Xylene	26.6	2.0	ug/l	25.0	ND	107	65-125			
Xylenes, Total	81.5	4.0	ug/l	75.0	ND	109	60-130			
Di-isopropyl Ether (DIPE)	26.8	5.0	ug/l	25.0	ND	107	60-140			
Ethyl tert-Butyl Ether (ETBE)	26.7	5.0	ug/l	25.0	ND	107	60-135			
Methyl-tert-butyl Ether (MTBE)	26.6	5.0	ug/l	25.0	ND	106	55-145			
tert-Amyl Methyl Ether (TAME)	28.6	5.0	ug/l	25.0	ND	115	60-140			
tert-Butanol (TBA)	137	50	ug/l	125	ND	109	65-140			
Surrogate: 4-Bromofluorobenzene	24.1		ug/l	25.0		96	80-120			
Surrogate: Dibromofluoromethane	24.1		ug/l	25.0		96	80-120			
Surrogate: Toluene-d8	25.0		ug/l	25.0		100	80-120			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23031 Extracted: 01/23/09</u>										
Matrix Spike Dup Analyzed: 01/23/2009 (9A23031-MSD1)										
Source: ISA1878-02										
benzene	25.9	2.0	ug/l	25.0	ND	104	65-125	3	20	
Bromobenzene	26.0	5.0	ug/l	25.0	ND	104	70-125	3	20	
Bromochloromethane	24.4	5.0	ug/l	25.0	ND	98	65-135	1	25	
bromodichloromethane	24.9	2.0	ug/l	25.0	ND	100	70-135	1	20	
bromoform	19.3	5.0	ug/l	25.0	ND	77	55-135	1	25	
Bromomethane	21.8	5.0	ug/l	25.0	ND	87	55-145	6	25	
-Butylbenzene	28.6	5.0	ug/l	25.0	ND	114	65-135	2	20	
c-Butylbenzene	29.1	5.0	ug/l	25.0	ND	116	70-125	4	20	
tert-Butylbenzene	28.5	5.0	ug/l	25.0	ND	114	65-130	2	20	
Carbon tetrachloride	26.9	5.0	ug/l	25.0	ND	107	65-140	3	25	
Chlorobenzene	26.4	2.0	ug/l	25.0	ND	106	75-125	2	20	
Chloroethane	23.2	5.0	ug/l	25.0	ND	93	55-140	4	25	
Chloroform	24.1	2.0	ug/l	25.0	ND	96	65-135	1	20	
chloromethane	21.2	5.0	ug/l	25.0	ND	85	45-145	3	25	
Chlorotoluene	27.8	5.0	ug/l	25.0	ND	111	65-135	3	20	
4-Chlorotoluene	28.8	5.0	ug/l	25.0	ND	115	70-135	4	20	
2-Dibromo-3-chloropropane	21.9	5.0	ug/l	25.0	ND	88	45-145	3	30	
bromochloromethane	21.0	2.0	ug/l	25.0	ND	84	65-140	1	25	
1,2-Dibromoethane (EDB)	23.5	2.0	ug/l	25.0	ND	94	70-130	2	25	
Dibromomethane	24.8	2.0	ug/l	25.0	ND	99	65-135	2	25	
2-Dichlorobenzene	26.5	2.0	ug/l	25.0	ND	106	75-125	3	20	
1,3-Dichlorobenzene	26.9	2.0	ug/l	25.0	ND	108	75-125	3	20	
1,4-Dichlorobenzene	23.0	2.0	ug/l	25.0	ND	92	75-125	4	20	
chlorodifluoromethane	21.2	5.0	ug/l	25.0	ND	85	25-155	3	30	
-Dichloroethane	26.9	2.0	ug/l	25.0	ND	107	65-130	1	20	
1,2-Dichloroethane	24.3	2.0	ug/l	25.0	ND	97	60-140	1	20	
1,1-Dichloroethene	20.0	5.0	ug/l	25.0	ND	80	60-130	1	20	
-1,2-Dichloroethene	25.3	2.0	ug/l	25.0	ND	101	65-130	1	20	
trans-1,2-Dichloroethene	23.0	2.0	ug/l	25.0	ND	92	65-130	2	20	
1,2-Dichloropropane	26.6	2.0	ug/l	25.0	ND	107	65-130	3	20	
-Dichloropropane	25.8	2.0	ug/l	25.0	ND	103	65-135	1	25	
2,2-Dichloropropane	26.2	2.0	ug/l	25.0	ND	105	60-145	2	25	
cis-1,3-Dichloropropene	32.1	2.0	ug/l	25.0	ND	128	70-130	1	20	
trans-1,3-Dichloropropene	24.8	2.0	ug/l	25.0	ND	99	65-135	4	25	
-Dichloropropene	27.8	2.0	ug/l	25.0	ND	111	70-135	4	20	
Ethylbenzene	27.9	2.0	ug/l	25.0	ND	112	65-130	2	20	

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A23031 Extracted: 01/23/09</u>										
Matrix Spike Dup Analyzed: 01/23/2009 (9A23031-MSD1)										
Hexachlorobutadiene	25.2	5.0	ug/l	25.0	ND	101	60-135	5	20	
Isopropylbenzene	28.6	2.0	ug/l	25.0	ND	115	70-135	5	20	
p-Isopropyltoluene	27.2	2.0	ug/l	25.0	ND	109	65-130	6	20	
Methylene chloride	28.8	5.0	ug/l	25.0	ND	115	50-135	0	20	
Naphthalene	26.8	5.0	ug/l	25.0	ND	107	50-140	5	30	
n-Propylbenzene	29.8	2.0	ug/l	25.0	ND	119	70-135	2	20	
Styrene	28.3	2.0	ug/l	25.0	ND	113	50-145	3	30	
1,1,1,2-Tetrachloroethane	24.5	5.0	ug/l	25.0	ND	98	65-140	2	20	
1,1,2,2-Tetrachloroethane	27.9	2.0	ug/l	25.0	ND	112	55-135	2	30	
Tetrachloroethene	24.8	2.0	ug/l	25.0	ND	99	65-130	3	20	
Toluene	26.5	2.0	ug/l	25.0	ND	106	70-125	1	20	
1,2,3-Trichlorobenzene	26.4	5.0	ug/l	25.0	ND	106	60-135	5	20	
1,2,4-Trichlorobenzene	27.1	5.0	ug/l	25.0	ND	108	65-135	6	20	
1,1,1-Trichloroethane	25.9	2.0	ug/l	25.0	ND	104	65-140	1	20	
1,1,2-Trichloroethane	26.7	2.0	ug/l	25.0	ND	107	65-130	5	25	
Trichloroethene	25.1	2.0	ug/l	25.0	ND	101	65-125	1	20	
Trichlorofluoromethane	21.9	5.0	ug/l	25.0	ND	88	60-145	1	25	
1,2,3-Trichloropropane	25.9	10	ug/l	25.0	ND	103	55-135	2	30	
1,2,4-Trimethylbenzene	28.4	2.0	ug/l	25.0	ND	114	55-135	3	25	
1,3,5-Trimethylbenzene	28.3	2.0	ug/l	25.0	ND	113	70-130	5	20	
Vinyl chloride	22.5	5.0	ug/l	25.0	ND	90	45-140	0	30	
m,p-Xylenes	55.3	2.0	ug/l	50.0	ND	111	65-130	1	25	
o-Xylene	27.2	2.0	ug/l	25.0	ND	109	65-125	2	20	
Xylenes, Total	82.4	4.0	ug/l	75.0	ND	110	60-130	1	20	
Di-isopropyl Ether (DIPE)	26.7	5.0	ug/l	25.0	ND	107	60-140	0	25	
Ethyl tert-Butyl Ether (ETBE)	26.8	5.0	ug/l	25.0	ND	107	60-135	0	25	
Methyl-tert-butyl Ether (MTBE)	26.8	5.0	ug/l	25.0	ND	107	55-145	1	25	
tert-Amyl Methyl Ether (TAME)	28.9	5.0	ug/l	25.0	ND	116	60-140	1	30	
tert-Butanol (TBA)	132	50	ug/l	125	ND	106	65-140	4	25	
Surrogate: 4-Bromofluorobenzene	23.8		ug/l	25.0		95	80-120			
Surrogate: Dibromofluoromethane	23.8		ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	25.3		ug/l	25.0		101	80-120			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A27011 Extracted: 01/27/09</u>										
Blank Analyzed: 01/27/2009 (9A27011-BLK1)										
<i>tert-Butanol (TBA)</i> ND 50 ug/l										
<i>Surrogate: 4-Bromofluorobenzene</i> 22.7 ug/l 25.0 91 80-120										
<i>Surrogate: Dibromofluoromethane</i> 24.8 ug/l 25.0 99 80-120										
<i>Surrogate: Toluene-d8</i> 25.2 ug/l 25.0 101 80-120										
LCS Analyzed: 01/27/2009 (9A27011-BS1)										
<i>tert-Butanol (TBA)</i> 128 50 ug/l 125 102 70-135										
<i>Surrogate: 4-Bromofluorobenzene</i> 25.4 ug/l 25.0 102 80-120										
<i>Surrogate: Dibromofluoromethane</i> 26.0 ug/l 25.0 104 80-120										
<i>Surrogate: Toluene-d8</i> 25.0 ug/l 25.0 100 80-120										
Matrix Spike Analyzed: 01/27/2009 (9A27011-MS1)										
<i>tert-Butanol (TBA)</i> 148 50 ug/l 125 22.0 101 65-140										
<i>Surrogate: 4-Bromofluorobenzene</i> 25.6 ug/l 25.0 102 80-120										
<i>Surrogate: Dibromofluoromethane</i> 25.2 ug/l 25.0 101 80-120										
<i>Surrogate: Toluene-d8</i> 25.4 ug/l 25.0 101 80-120										
Matrix Spike Dup Analyzed: 01/27/2009 (9A27011-MSD1)										
<i>1-Butanol (TBA)</i> 146 50 ug/l 125 22.0 99 65-140 1 25										
<i>Surrogate: 4-Bromofluorobenzene</i> 25.3 ug/l 25.0 101 80-120										
<i>Surrogate: Dibromofluoromethane</i> 25.1 ug/l 25.0 101 80-120										
<i>Surrogate: Toluene-d8</i> 25.6 ug/l 25.0 103 80-120										

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METHOD BLANK/QC DATA

DISSOLVED GASES BY HEADSPACE EQUILIBRIUM (RSK-175 MOD.)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A22083 Extracted: 01/22/09</u>										
Blank Analyzed: 01/22/2009 (9A22083-BLK1)										
Methane	ND	0.0010	mg/l							
LCS Analyzed: 01/22/2009 (9A22083-BS1)										
Methane	0.0148	0.0010	mg/l	0.0136		109	80-120			
LCS Dup Analyzed: 01/22/2009 (9A22083-BSD1)										
Methane	0.0142	0.0010	mg/l	0.0136		104	80-120	5	25	
Matrix Spike Analyzed: 01/22/2009 (9A22083-MS1)										
Methane	0.0281	0.0010	mg/l	0.0136	Source: ISA1727-02 0.00760	150	80-120			MI
Matrix Spike Dup Analyzed: 01/22/2009 (9A22083-MSD1)										
Methane	0.0328	0.0010	mg/l	0.0136	Source: ISA1727-02 0.00760	185	80-120	16	25	MI

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A21057 Extracted: 01/21/09</u>										

Blank Analyzed: 01/21/2009 (9A21057-BLK1)

Nitrate-N	ND	0.11	mg/l
Sulfate	ND	0.50	mg/l

CS Analyzed: 01/21/2009 (9A21057-BS1)

Nitrate-N	1.18	0.11	mg/l	1.13		105	90-110
Sulfate	10.2	0.50	mg/l	10.0		102	90-110

M-3

Matrix Spike Analyzed: 01/21/2009 (9A21057-MS1)

Nitrate-N	48.6	2.2	mg/l	11.3	37.8	96	80-120
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Source: ISA1740-02

Matrix Spike Analyzed: 01/21/2009 (9A21057-MS2)

Nitrate-N	15.7	0.55	mg/l	1.13	14.4	116	80-120
Sulfate	85.1	2.5	mg/l	10.0	74.4	107	80-120

Matrix Spike Dup Analyzed: 01/21/2009 (9A21057-MSD1)

Nitrate-N	48.7	2.2	mg/l	11.3	37.8	96	80-120	0	20
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Batch: 9A21099 Extracted: 01/21/09

Blank Analyzed: 01/21/2009 (9A21099-BLK1)

Chromium VI	ND	0.0020	mg/l
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CS Analyzed: 01/21/2009 (9A21099-BS1)

Chromium VI	0.0474	0.0020	mg/l	0.0500		95	90-110
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Source: ISA1789-02

Matrix Spike Analyzed: 01/21/2009 (9A21099-MS1)

Chromium VI	0.0506	0.0020	mg/l	0.0500	ND	101	85-115
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 9A21099 Extracted: 01/21/09</u>										
Matrix Spike Dup Analyzed: 01/21/2009 (9A21099-MSD1)										
Chromium VI 0.0513 0.0020 mg/l 0.0500 ND 103 85-115 1 20										
<u>Batch: 9A22070 Extracted: 01/22/09</u>										
Blank Analyzed: 01/22/2009 (9A22070-BLK1)										
Ferrous Iron ND 0.10 mg/l										
LCS Analyzed: 01/22/2009 (9A22070-BS1)										
Ferrous Iron 5.00 0.10 mg/l 5.00 100 80-120										
Duplicate Analyzed: 01/22/2009 (9A22070-DUP1)										
Ferrous Iron 0.100 0.10 mg/l 0.100 0 20 HFT										
Duplicate Analyzed: 01/22/2009 (9A22070-DUP2)										
Ferrous Iron 4.00 0.10 mg/l 4.00 0 20 HFT										
<u>Batch: 9A28037 Extracted: 01/28/09</u>										
Blank Analyzed: 01/28/2009 (9A28037-BLK1)										
Alkalinity as CaCO ₃ ND 2.0 mg/l										
Duplicate Analyzed: 01/28/2009 (9A28037-DUP1)										
Alkalinity as CaCO ₃ 116 2.0 mg/l 114 2 20										
Reference Analyzed: 01/28/2009 (9A28037-SRM1)										
Alkalinity as CaCO ₃ 224 2.0 mg/l 223 100 90-110										

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DATA QUALIFIERS AND DEFINITIONS

HFT	The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
Z2	Surrogate recovery was above the acceptance limits. Data not impacted.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

Arcadis Blasland, Bouck & Lee - Glendale
801 N. Brand Blvd., Suite 1120
Glendale, CA 91203
Attention: Leah Levy

Project ID: Former Cenco Refinery
B0054216.0000
Report Number: ISA1789

Sampled: 01/21/09
Received: 01/21/09

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 300.0	Water	X	X
EPA 7199	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8260B	Water	X	X
RSK-175 MOD.	Water	N/A	N/A
SM 3500-Fe D	Water		
SM2320B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica Irvine

Sushmitha Reddy
Project Manager

*The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,
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CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3820 FAX (702) 798-3621

ISA1789

Page 1 of 1

Client Name/Address: ARCADIS 801 N. Band Blvd. # 1120 Glendale, CA 91203			Project/PO Number: Former CENCO Refining 80054216.0000			Analysis Required																	
Project Manager: Leah Levy			Phone Number: (818) 522-9470																				
Sampler: Maher Zein			Fax Number: (818) 522-9476																				
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives													Special Instructions				
TB012109	W	VQA	3	1.21.9.0700	HCl	✓	✓																
W-16A-0109		VQA Poly	7	1	0900 Vaseline	✓	✓	✓															
W-16B-0109		+	7	1045		✓	✓	✓															
W-16C-0109			7	1245		✓	✓	✓															
MW-53B-0109			12	1345		✓	✓	✓	✓	✓	✓	✓	✓	✓									
W-10-0109			7	1445		✓	✓	✓															
W-10-0109-D		↓	7	1445	↓	✓	✓	✓															
No More Samples <i>(MO) 01.21.09</i>																		<i>1/21/09 1/21/09 1/21/09</i>					
Relinquished By:	Date / Time:		Received By:			Date / Time:		Turnaround Time: (Check)															
<i>Maher Z.</i>	<i>01.20.09 1535</i>		<i>J. Johnson TST</i>			<i>1/21/09 1535</i>		same day _____ 72 hours _____															
Relinquished By:	Date / Time:		Received By:			Date / Time:		24 hours _____ 5 days _____															
<i>J. Johnson TST</i>	<i>1/21/09 1640</i>		<i>J. Johnson TST</i>			<i>1/21/09 1640</i>		48 hours _____ normal _____															
Relinquished By:	Date / Time:		Received in Lab By:			Date / Time:		Sample Integrity: (Check)															
<i>J. Johnson TST</i>	<i>1/21/09 1640</i>		<i>J. Johnson TST</i>			<i>1/21/09 1640</i>		intact _____ on ice _____															

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project.
 Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

072

ARCADIS

Appendix D

Historical Groundwater Data

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MW-101	6/1/1988	-	88.66	ND	0	46.32	134.98
	9/1/1988	-	89.29	ND	0	45.69	134.98
12/1/1988	-	90.10	ND	0	44.88	134.98	
3/1/1989	-	90.26	ND	0	44.70	134.98	
12/1/1989	-	90.29	ND	0	44.69	134.98	
3/1/1991	-	91.09	ND	0	43.89	134.98	
6/1/1991	-	90.24	ND	0	44.74	134.98	
12/1/1991	-	90.40	ND	0	44.83	135.23	
3/1/1992	-	89.87	ND	0	45.36	135.23	
6/1/1992	-	88.47	ND	0	46.76	135.23	
9/1/1992	-	88.60	ND	0	46.63	135.23	
12/1/1992	-	88.69	ND	0	46.54	135.23	
3/1/1993	-	87.35	ND	0	47.88	135.23	
9/1/1993	-	82.34	82.33	0.01	52.90	135.23	
11/1/1993	-	80.83	80.82	0.01	54.41	135.23	
3/1/1994	-	78.10	78.08	0.02	57.15	135.23	
6/1/1994	-	76.38	76.37	0.01	58.86	135.23	
9/1/1994	-	76.64	76.63	0.01	58.60	135.23	
12/1/1994	-	77.57	ND	0	57.66	135.23	
3/1/1995	-	77.46	ND	0	57.77	135.23	
9/1/1995	-	74.75	ND	0	60.48	135.23	
12/1/1995	-	75.15	ND	0	60.08	135.23	
7/1/1996	-	74.55	ND	0	60.68	135.23	
12/1/1996	-	75.61	ND	0	59.62	135.23	
1/1/1998	-	74.72	ND	0	60.51	135.23	
8/1/1998	-	73.45	ND	0	61.78	135.23	
1/1/1999	-	74.03	ND	0	61.20	135.23	
7/1/1999	-	75.53	ND	0	59.70	135.23	
1/1/2000	-	79.40	ND	0	55.83	135.23	
7/1/2000	-	81.20	ND	0	54.03	135.23	
2/1/2001	-	82.09	ND	0	53.14	135.23	
7/1/2001	-	81.60	ND	0	53.63	135.23	
5/1/2002	-	83.10	ND	0	52.13	135.23	
9/1/2002	-	85.49	ND	0	49.74	135.23	
6/28/2004	94.40	Dry	ND	0	Dry	135.23	
MW-103	6/1/1988	-	93.36	ND	0	43.59	136.95
	9/1/1988	-	93.82	ND	0	43.13	136.95
	12/1/1988	-	94.76	ND	0	42.18	136.95
	3/1/1989	-	95.68	ND	0	41.27	136.95
	6/1/1989	-	95.92	ND	0	41.03	136.95
	9/1/1989	-	96.20	ND	0	40.75	136.95
	12/1/1989	-	96.90	ND	0	40.05	136.95
	3/1/1991	-	96.51	ND	0	40.44	136.95
	6/1/1991	-	96.08	ND	0	40.87	136.95
	9/1/1991	-	95.92	ND	0	41.03	136.95
	12/1/1991	-	95.91	ND	0	41.04	136.95
	3/1/1992	-	95.06	ND	0	41.89	136.95
	6/1/1992	-	93.90	ND	0	43.05	136.95

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

		DATE	LEVEL (FT.)	ND	0	43.22	136.95
MW-103	9/1/1992	-	93.73	ND	0	43.22	136.95
	12/1/1992	-	93.99	ND	0	42.96	136.95
	3/1/1993	-	93.15	ND	0	43.80	136.95
	5/1/1993	-	90.90	ND	0	46.05	136.95
	9/1/1993	-	88.67	ND	0	48.28	136.95
	11/1/1993	-	87.24	ND	0	49.71	136.95
	3/1/1994	-	84.86	84.85	0.01	52.10	136.95
	6/1/1994	-	83.15	83.14	0.01	53.81	136.95
	9/1/1994	-	82.70	82.69	0.01	54.26	136.95
	12/1/1994	-	83.17	ND	0	53.78	136.95
	3/1/1995	-	82.65	ND	0	54.30	136.95
	9/1/1995	-	81.03	ND	0	55.92	136.95
	12/1/1995	-	81.21	ND	0	55.74	136.95
	7/1/1996	-	80.41	ND	0	56.54	136.95
	12/1/1996	-	81.24	ND	0	55.71	136.95
	1/1/1998	-	80.55	ND	0	56.40	136.95
	8/1/1998	-	79.51	ND	0	57.44	136.95
	1/1/1999	-	79.88	ND	0	57.07	136.95
	7/1/1999	-	80.74	ND	0	56.21	136.95
	1/1/2000	-	83.70	ND	0	53.25	136.95
	7/1/2000	-	85.80	ND	0	51.15	136.95
	2/1/2001	-	87.01	ND	0	49.94	136.95
	7/1/2001	-	86.55	ND	0	50.40	136.95
	5/1/2002	-	87.88	ND	0	49.07	136.95
	9/1/2002	-	89.31	ND	0	47.64	136.95
	6/28/2004	99.00	94.34	94.32	0.02	40.91	135.23
MW-104 Abandoned	6/1/1988	-	87.95	ND	0	53.11	141.06
	9/1/1988	-	88.25	ND	0	52.81	141.06
	12/1/1988	-	88.67	ND	0	52.39	141.06
	3/1/1989	-	89.15	ND	0	51.91	141.06
	6/1/1989	-	89.57	ND	0	51.49	141.06
	9/1/1989	-	89.90	ND	0	51.16	141.06
	12/1/1989	-	90.17	ND	0	50.89	141.06
	3/1/1990	-	90.62	ND	0	50.44	141.06
	6/1/1990	-	90.82	ND	0	50.24	141.06
	9/1/1990	-	90.96	ND	0	50.10	141.06
	12/1/1990	-	91.13	ND	0	49.93	141.06
	3/1/1991	-	91.12	ND	0	49.94	141.06
	6/1/1991	-	91.02	ND	0	50.04	141.06
	9/1/1991	-	90.76	ND	0	50.30	141.06
	12/1/1991	-	90.63	ND	0	50.43	141.06
	3/1/1992	-	90.45	ND	0	50.61	141.06
	6/1/1992	-	89.90	ND	0	51.16	141.06
	9/1/1992	-	89.33	ND	0	51.73	141.06
	12/1/1992	-	89.10	ND	0	51.96	141.06
	3/1/1993	-	88.71	ND	0	52.35	141.06
	5/1/1993	-	87.55	ND	0	53.51	141.06
	9/1/1993	-	86.15	ND	0	54.91	141.06

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MW-104	11/1/1993	—	84.05	ND	0	57.01	141.06
Abandoned	3/1/1994	—	82.33	ND	0	58.73	141.06
	6/1/1994	—	80.55	ND	0	60.51	141.06
	9/1/1994	—	79.37	79.36	0.01	61.70	141.06
	12/1/1994	—	79.50	ND	0	61.56	141.06
	3/1/1995	—	79.32	ND	0	61.74	141.06
	9/1/1995	—	77.26	ND	0	63.80	141.06
	12/1/1995	—	77.21	ND	0	63.85	141.06
	7/1/1996	—	76.75	ND	0	64.31	141.06
	12/1/1996	—	77.38	ND	0	63.68	141.06
	1/1/1998	—	75.58	ND	0	65.48	141.06
	8/1/1998	—	75.58	ND	0	65.48	141.06
	1/1/1999	—	75.91	ND	0	65.15	141.06
MW-104A	7/1/1999	—	76.32	ND	0	64.84	141.16
	1/1/2000	—	78.86	ND	0	62.30	141.16
	7/1/2000	—	81.50	ND	0	59.86	141.16
	2/1/2001	—	82.89	ND	0	58.27	141.16
	7/1/2001	—	82.38	ND	0	58.78	141.16
	5/1/2002	—	83.64	ND	0	57.52	141.16
	9/1/2002	—	84.33	ND	0	56.83	141.16
	6/28/2004	100.00	88.16	ND	0	53.00	141.16
MW-105	7/1/1996	—	73.85	ND	0	64.78	138.63
	12/1/1996	—	75.12	ND	0	63.51	138.63
	1/1/1998	—	74.12	ND	0	64.51	138.63
	8/1/1998	—	72.86	ND	0	65.97	138.63
	1/1/1999	—	73.15	ND	0	65.48	138.63
	7/1/1999	—	74.95	ND	0	63.68	138.63
	1/1/2000	—	78.91	ND	0	59.72	138.63
	7/1/2000	—	80.72	ND	0	57.91	138.63
	2/1/2001	—	81.68	ND	0	56.95	138.63
	7/1/2001	—	80.95	ND	0	57.68	138.63
	5/1/2002	—	82.59	ND	0	58.04	138.63
	9/1/2002	—	84.92	ND	0	53.71	138.63
	6/28/2004	100.00	90.69	ND	0	47.94	138.63
MW-106	7/1/1996	—	81.86	ND	0	66.55	148.41
	12/1/1996	—	82.05	ND	0	66.38	148.41
	1/1/1998	—	81.29	ND	0	67.12	148.41
	8/1/1998	—	80.47	ND	0	67.94	148.41
	1/1/1999	—	80.48	ND	0	67.93	148.41
	7/1/1999	—	80.92	ND	0	67.49	148.41
	1/1/2000	—	82.65	ND	0	65.76	148.41

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MW-106A	7/1/2000	-	85.18	ND	0	63.23	148.41
	2/1/2001	-	86.68	ND	0	61.73	148.41
	7/1/2001	-	86.89	ND	0	61.52	148.41
	5/1/2002	-	88.19	ND	0	60.22	148.41
	9/1/2002	-	88.66	ND	0	59.55	148.41
	6/28/2004	108.00	93.21	ND	0	55.20	148.41
MW-107A	7/1/1998	-	89.92	ND	0	59.01	148.93
	12/1/1998	-	89.85	ND	0	59.08	148.93
	1/1/1998	-	88.99	ND	0	59.94	148.93
	6/1/1998	-	88.05	ND	0	60.88	148.93
	1/1/1998	-	88.14	ND	0	60.79	148.93
	7/1/1999	-	88.45	ND	0	60.48	148.93
	1/1/2000	-	90.00	ND	0	58.93	148.93
	7/1/2000	-	91.90	ND	0	57.03	148.93
	2/1/2001	-	93.51	ND	0	55.42	148.93
	7/1/2001	-	93.92	ND	0	55.01	148.93
	5/1/2002	-	95.2	ND	0	53.73	148.93
	9/1/2002	-	95.92	ND	0	53.01	148.93
	6/28/2004	108.00	99.23	ND	0	49.70	148.93
MW-201	6/1/1988	-	90.05	ND	0	42.86	132.91
	9/1/1988	-	90.77	ND	0	42.14	132.91
	12/1/1988	-	92.24	ND	0	40.67	132.91
	3/1/1989	-	92.84	ND	0	40.07	132.91
	6/1/1989	-	93.00	ND	0	39.91	132.91
	9/1/1989	-	93.60	ND	0	39.31	132.91
	12/1/1989	-	94.51	ND	0	38.40	132.91
	3/1/1990	-	94.91	ND	0	38.00	132.91
	6/1/1990	-	94.48	ND	0	38.43	132.91
	9/1/1990	-	94.85	ND	0	38.06	132.91
	12/1/1990	-	95.43	ND	0	37.48	132.91
	3/1/1991	-	93.88	ND	0	39.03	132.91
	6/1/1991	-	93.05	ND	0	39.86	132.91
	9/1/1991	-	93.57	ND	0	39.34	132.91
	12/1/1991	-	92.90	ND	0	40.01	132.91
	3/1/1992	-	91.30	ND	0	41.61	132.91
	6/1/1992	-	90.10	ND	0	42.81	132.91
	9/1/1992	-	90.40	ND	0	42.51	132.91
	12/1/1992	-	90.29	ND	0	42.62	132.91
	3/1/1993	-	88.84	ND	0	44.07	132.91
	5/1/1993	-	86.33	ND	0	46.58	132.91
	9/1/1993	-	84.47	84.45	0.02	48.46	132.91
	12/1/1993	-	82.75	82.74	0.01	50.17	132.91
	3/1/1994	-	79.76	79.75	0.01	53.16	132.91
	6/1/1994	-	78.06	78.05	0.01	54.86	132.91
	9/1/1994	-	78.46	78.45	0.01	54.46	132.91
	12/1/1994	-	79.10	ND	0	53.81	132.91
	3/1/1995	-	77.87	ND	0	55.04	132.91

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MW-201	9/1/1995	-	76.53	ND	0	56.38
	12/1/1995	-	76.79	ND	0	56.12
	7/1/1996	-	76.00	ND	0	56.91
	12/1/1996	-	76.93	ND	0	55.98
	1/1/1998	-	76.02	ND	0	56.89
	8/1/1998	-	75.01	ND	0	57.90
	1/1/1999	-	75.38	ND	0	57.55
	7/1/1999	-	76.88	ND	0	58.03
	1/1/2000	-	79.50	ND	0	53.41
	7/1/2000	-	82.44	ND	0	50.47
	2/1/2001	-	83.32	ND	0	49.59
	7/1/2001	-	83.00	ND	0	49.91
	5/1/2002	-	84.45	ND	0	48.46
	9/1/2002	-	86.96	ND	0	45.95
	6/28/2004	103.00	92.13	ND	0	40.78
MW-202	6/1/1988	-	Dry	ND	0	NA
	9/1/1988	-	Dry	ND	0	NA
	12/1/1988	-	Dry	ND	0	NA
	3/1/1989	-	Dry	ND	0	NA
	6/1/1989	-	Dry	ND	0	NA
	9/1/1989	-	Dry	ND	0	NA
	12/1/1989	-	Dry	ND	0	NA
	3/1/1990	-	Dry	ND	0	NA
	9/1/1990	-	Dry	ND	0	NA
	12/1/1990	-	Dry	ND	0	NA
	3/1/1991	-	Dry	ND	0	NA
	6/1/1991	-	Dry	ND	0	NA
	9/1/1991	-	Dry	ND	0	NA
	12/1/1991	-	Dry	ND	0	NA
	3/1/1992	-	Dry	ND	0	NA
	6/1/1992	-	Dry	ND	0	NA
	9/1/1992	-	Dry	ND	0	NA
	12/1/1992	-	Dry	ND	0	NA
	3/1/1993	-	Dry	ND	0	NA
	5/1/1993	-	Dry	ND	0	NA
	9/1/1993	-	89.36	89.35	0.01	48.54
	11/1/1993	-	87.85	ND	0	50.04
	3/1/1994	-	85.36	85.35	0.01	52.54
	6/1/1994	-	83.53	83.52	0.01	54.37
	9/1/1994	-	83.32	83.31	0.01	54.58
	12/1/1994	-	83.88	83.87	0.01	54.02
	3/1/1995	-	83.10	ND	0	54.79
	9/1/1995	-	81.44	ND	0	56.45
	12/1/1995	-	81.71	ND	0	56.18
	7/1/1996	-	80.90	ND	0	56.99
	12/1/1996	-	81.78	ND	0	56.11
	1/1/1998	-	81.00	ND	0	56.89
	8/1/1998	-	79.93	ND	0	57.96

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

		GROUNDSWATER LEVEL MEASUREMENTS					
		Date	Depth ft	Method	Value ft	Unit	Notes
MW-202	1/1/1999	—	83.35	ND	0	54.54	137.89
	7/1/1999	—	81.37	ND	0	56.52	137.89
	1/1/2000	—	84.70	ND	0	53.19	137.89
	7/1/2000	—	88.78	ND	0	51.11	137.89
	2/1/2001	—	87.86	ND	0	50.03	137.89
	7/1/2001	—	87.49	ND	0	50.40	137.89
	5/1/2002	—	88.88	ND	0	49.01	137.89
	9/1/2002	—	90.59	ND	0	47.30	137.89
	6/28/2004	105.00	Dry	ND	0	Dry	137.89
MW-203	6/1/1988	—	95.98	ND	0	47.91	143.89
	9/1/1988	—	96.30	ND	0	47.59	143.89
	12/1/1988	—	96.76	ND	0	47.13	143.89
	3/1/1989	—	97.15	ND	0	46.74	143.89
	6/1/1989	—	97.50	ND	0	46.39	143.89
	9/1/1989	—	97.85	ND	0	46.04	143.89
	12/1/1989	—	98.19	ND	0	45.70	143.89
	3/1/1990	—	98.72	ND	0	45.17	143.89
	9/1/1990	—	99.09	ND	0	44.80	143.89
	12/1/1990	—	99.55	ND	0	44.34	143.89
	3/1/1991	—	99.23	ND	0	44.66	143.89
	6/1/1991	—	99.19	ND	0	44.70	143.89
	9/1/1991	—	98.93	ND	0	44.96	143.89
	12/1/1991	—	98.84	ND	0	45.05	143.89
	3/1/1992	—	98.39	ND	0	45.50	143.89
	6/1/1992	—	97.76	ND	0	46.13	143.89
	9/1/1992	—	97.47	ND	0	46.42	143.89
	12/1/1992	—	97.50	ND	0	46.39	143.89
	3/1/1993	—	97.13	ND	0	46.76	143.89
	5/1/1993	—	96.14	ND	0	47.75	143.89
	9/1/1993	—	95.81	ND	0	48.08	143.89
	11/1/1993	—	93.84	93.83	0.01	50.06	143.89
	3/1/1994	—	92.27	92.25	0.02	51.64	143.89
	6/1/1994	—	90.68	90.67	0.01	53.22	143.89
	9/1/1994	—	89.61	89.60	0.01	54.29	143.89
	12/1/1994	—	89.41	ND	0	54.48	143.89
	3/1/1995	—	89.03	ND	0	54.86	143.89
	9/1/1995	—	87.47	ND	0	56.42	143.89
	12/1/1995	—	87.38	ND	0	56.51	143.89
	7/1/1996	—	86.53	ND	0	57.36	143.89
	12/1/1996	—	87.03	ND	0	56.86	143.89
	1/1/1997	—	86.39	ND	0	57.50	143.89
	8/1/1998	—	85.38	ND	0	58.51	143.89
	1/1/1999	—	85.72	ND	0	58.17	143.89
	7/1/1999	—	86.30	ND	0	57.59	143.89
	1/1/2000	—	88.54	ND	0	55.35	143.89
	7/1/2000	—	90.60	ND	0	53.29	143.89
	2/1/2001	—	91.81	ND	0	52.08	143.89
	7/1/2001	—	91.76	ND	0	52.13	143.89

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MW-203	5/1/2002	-	92.96	ND	0	50.93
	9/1/2002	-	93.62	ND	0	50.27
	6/28/2004	107.00	96.93	ND	0	46.96
						143.89
MW-204*	6/1/1988	-	94.95	ND	0	45.19
	9/1/1988	-	95.43	ND	0	44.71
	12/1/1988	-	96.57	ND	0	43.57
	3/1/1989	-	97.53	ND	0	42.61
	6/1/1989	-	97.68	ND	0	42.46
	9/1/1989	-	98.00	ND	0	42.14
	12/1/1989	-	98.70	ND	0	41.44
	3/1/1990	-	99.19	ND	0	40.95
	6/1/1990	-	99.95	ND	0	41.19
	9/1/1990	-	99.08	ND	0	41.06
	12/1/1990	-	99.50	ND	0	40.64
	3/1/1991	-	98.61	ND	0	41.53
	6/1/1991	-	97.85	ND	0	42.29
	9/1/1991	-	97.59	ND	0	42.55
	12/1/1991	-	97.50	ND	0	42.84
	3/1/1992	-	96.45	ND	0	43.69
	6/1/1992	-	95.07	ND	0	45.07
	9/1/1992	-	94.91	ND	0	45.23
	12/1/1992	-	95.08	ND	0	45.06
	3/1/1993	-	94.03	ND	0	46.11
	5/1/1993	-	91.83	ND	0	48.31
	9/1/1993	-	89.56	89.55	0.01	50.59
	11/1/1993	-	88.10	88.09	0.01	52.05
	3/1/1994	-	85.90	85.89	0.01	54.25
	6/1/1994	-	84.09	ND	0	56.05
	9/1/1994	-	83.71	83.70	0.01	56.44
	12/1/1994	-	84.31	ND	0	55.83
	3/1/1995	-	83.76	ND	0	56.38
	9/1/1995	-	81.98	ND	0	58.16
	12/1/1995	-	82.23	ND	0	57.91
	7/1/1996	-	81.50	ND	0	58.64
	12/1/1996	-	82.42	ND	0	57.72
	1/1/1998	-	81.69	ND	0	58.45
	8/1/1998	-	80.57	ND	0	59.57
	1/1/1999	-	80.95	ND	0	59.19
	7/1/1999	-	81.93	ND	0	58.21
	1/1/2000	-	84.80	ND	0	55.34
	7/1/2000	-	87.17	ND	0	52.97
	2/1/2001	-	88.29	ND	0	51.85
	7/1/2001	-	87.93	ND	0	52.21
	5/1/2002	-	89.26	ND	0	50.86
	9/1/2002	-	90.80	ND	0	49.34
	6/28/2004	99.50	96.39	ND	0	43.75
						140.14

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MW-205	6/1/1988	—	90.15	ND	0	48.02	138.17
	9/1/1988	—	90.67	ND	0	47.50	138.17
	12/1/1988	—	91.92	ND	0	46.25	138.17
	3/1/1989	—	92.88	ND	0	45.29	138.17
	6/1/1989	—	92.80	ND	0	45.37	138.17
	9/1/1989	—	93.20	ND	0	44.97	138.17
	12/1/1989	—	94.05	ND	0	44.12	138.17
	3/1/1990	—	94.20	ND	0	43.87	138.17
	6/1/1990	—	94.12	ND	0	44.05	138.17
	9/1/1990	—	93.85	ND	0	44.32	138.17
	12/1/1990	—	94.80	ND	0	43.37	138.17
	3/1/1991	—	93.49	ND	0	44.68	138.17
	6/1/1991	—	92.84	ND	0	45.53	138.17
	9/1/1991	—	92.45	ND	0	45.72	138.17
	12/1/1991	—	92.85	ND	0	45.39	138.04
	3/1/1992	—	90.92	ND	0	47.12	138.04
	6/1/1992	—	89.59	ND	0	48.45	138.04
	9/1/1992	—	89.61	ND	0	48.43	138.04
	12/1/1992	—	89.65	ND	0	48.39	138.04
	3/1/1993	—	88.80	ND	0	49.44	138.04
	5/1/1993	—	85.92	ND	0	52.12	138.04
	9/1/1993	—	83.56	83.55	0.01	54.49	138.04
	11/1/1993	—	82.00	ND	0	58.04	138.04
	3/1/1994	—	79.55	79.54	0.01	58.50	138.04
	6/1/1994	—	77.75	77.74	0.01	60.30	138.04
	9/1/1994	—	77.80	77.79	0.01	60.25	138.04
	12/1/1994	—	78.76	ND	0	59.28	138.04
	3/1/1995	—	77.80	ND	0	60.24	138.04
	9/1/1995	—	75.91	ND	0	62.13	138.04
	12/1/1995	—	78.28	ND	0	61.76	138.04
	7/1/1996	—	75.74	ND	0	62.30	138.04
	12/1/1996	—	76.09	ND	0	61.95	138.04
	1/1/1996	—	75.26	ND	0	62.78	138.04
	8/1/1996	—	73.96	ND	0	64.08	138.04
	1/1/1999	—	74.59	ND	0	63.45	138.04
	7/1/1999	—	75.95	ND	0	62.09	138.04
	1/1/2000	—	79.45	ND	0	58.59	138.04
	7/1/2000	—	81.60	ND	0	56.44	138.04
	2/1/2001	—	82.57	ND	0	55.47	138.04
	7/1/2001	—	82.01	ND	0	56.03	138.04
	5/1/2002	—	83.52	ND	0	54.52	138.04
	9/1/2002	—	85.68	ND	0	52.36	138.04
	6/28/2004	103.00	91.31	ND	0	46.73	138.04
MW-206 Abandoned	6/1/1988	—	92.37	ND	0	37.56	129.93
	9/1/1988	—	93.37	ND	0	36.56	129.93
	12/1/1988	—	94.93	ND	0	35.00	129.93
	3/1/1989	—	95.20	ND	0	34.73	129.93
	6/1/1989	—	95.55	ND	0	34.38	129.93

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID Status	Date	Water Level (ft)		Elevation (ft)	Depth (ft)	Notes
		Specific Gravity	Specific Conductance			
MW-206 Abandoned	9/1/1989	—	96.88	ND	0	33.05
	12/1/1989	—	94.75	ND	0	35.18
	3/1/1990	—	97.75	ND	0	32.18
	6/1/1990	—	97.48	ND	0	32.45
	9/1/1990	—	98.02	ND	0	31.91
	12/1/1990	—	98.64	ND	0	31.29
	3/1/1991	—	96.92	ND	0	33.01
	6/1/1991	—	96.11	ND	0	33.82
	9/1/1991	—	96.41	ND	0	33.52
	12/1/1991	—	96.12	ND	0	33.81
	3/1/1992	—	94.32	ND	0	35.61
	6/1/1992	—	93.45	ND	0	36.48
	9/1/1992	—	93.97	ND	0	35.96
	12/1/1992	—	93.50	ND	0	36.43
	3/1/1993	—	91.91	ND	0	38.02
	5/1/1993	—	89.60	ND	0	40.33
	9/1/1993	—	87.91	87.90	0.01	42.03
	12/1/1993	—	86.43	86.41	0.02	43.52
	3/1/1994	—	82.89	82.88	0.01	47.05
	6/1/1994	—	81.30	81.28	0.01	48.64
	9/1/1994	—	81.81	81.80	0.01	48.13
	12/1/1994	—	82.00	ND	0	47.93
	3/1/1995	—	80.33	ND	0	49.60
	9/1/1995	—	79.68	ND	0	50.25
	12/1/1995	—	79.65	ND	0	50.28
	7/1/1996	—	78.57	ND	0	51.36
	12/1/1996	—	79.40	ND	0	50.53
	1/1/1998	—	78.40	ND	0	51.53
	8/1/1998	—	—	—	—	Well Damaged
	1/1/1999	—	—	—	—	Well Destroyed
MW-501 Abandoned	6/1/1988	—	92.46	91.16	1.3	37.28
	9/1/1988	—	94.39	93.03	1.36	35.40
	12/1/1988	—	94.41	93.71	0.7	34.85
	3/1/1989	—	94.81	94.06	0.75	34.49
	6/1/1989	—	94.62	93.81	0.81	34.73
	9/1/1989	—	96.17	95.21	0.96	33.30
	12/1/1989	—	97.15	96.32	0.83	32.21
	3/1/1990	—	97.62	96.80	0.82	31.74
	6/1/1990	—	96.02	95.27	0.75	33.28
	9/1/1990	—	97.80	96.85	0.95	31.66
	12/1/1990	—	98.82	97.64	1.18	30.82
	3/1/1991	—	96.83	96.25	0.58	32.33
	6/1/1991	—	95.94	95.44	0.5	33.16
	9/1/1991	—	96.12	95.62	0.5	32.98
	12/1/1991	—	95.91	95.44	0.47	33.17
	3/1/1992	—	94.14	93.93	0.21	34.73
	6/1/1992	—	92.98	92.97	0.01	35.73
	9/1/1992	—	93.42	93.25	0.17	35.42

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Groundwater Level Measurements (Previous Consultants)							
Well ID	Date	Level (ft)	Depth (ft)	Specific Capacity (ft)	Recovery (ft)	Drawdown (ft)	Notes
MW-501 Abandoned	12/1/1992	—	92.99	92.85	0.14	35.82	128.70
	3/1/1993	—	91.60	ND	0	37.10	128.70
	5/1/1993	—	89.45	ND	0	39.25	128.70
	9/1/1993	—	87.77	87.76	0.01	40.94	128.70
	12/1/1993	—	86.25	86.24	0.01	42.46	128.70
	3/1/1994	—	83.19	83.18	0.01	45.52	128.70
	6/1/1994	—	81.35	81.34	0.01	47.36	128.70
	9/1/1994	—	81.27	81.26	0.01	47.44	128.70
	12/1/1994	—	81.50	81.49	0.01	47.21	128.70
	3/1/1995	—	80.23	ND	0	48.47	128.70
	9/1/1995	—	76.04	ND	0	52.66	128.70
	12/1/1995	—	79.09	ND	0	49.61	128.70
	7/1/1996	—	77.84	ND	0	50.86	128.70
	12/1/1996	—	78.67	ND	0	50.03	128.70
	1/1/1997	—	—	—	—	—	128.70
	8/1/1998	—	—	—	—	—	Well Damaged
	1/1/1999	—	—	—	—	—	Well Damaged
MW-501A	7/1/1999	—	77.70	ND	0	—	Not Surveyed
	1/1/2000	—	81.83	ND	0	—	Not Surveyed
	7/1/2000	—	83.24	ND	0	—	Not Surveyed
	2/1/2001	—	84.48	ND	0	—	Not Surveyed
	7/1/2001	—	84.33	ND	0	—	Not Surveyed
	5/1/2002	—	85.76	ND	0	—	Not Surveyed
	9/1/2002	—	87.96	ND	0	—	Not Surveyed
	6/26/2004	95.00	—	Well was not located for sampling			
MW-502	6/1/1988	—	94.00	ND	0	37.19	131.19
	9/1/1988	—	94.95	ND	0	36.24	131.19
	12/1/1988	—	96.35	ND	0	34.84	131.19
	3/1/1989	—	96.75	ND	0	34.44	131.19
	6/1/1989	—	97.27	94.14	3.13	36.42	131.19
	9/1/1989	—	99.08	98.25	2.83	34.37	131.19
	12/1/1989	—	100.40	98.85	1.75	32.19	131.19
	3/1/1990	—	100.96	99.23	1.73	31.61	131.19
	6/1/1990	—	99.16	97.77	1.39	33.14	131.19
	6/1/1991	—	97.95	97.21	0.74	33.46	130.82
	9/1/1991	—	98.20	97.46	0.74	33.21	130.82
	12/1/1991	—	97.97	97.19	0.78	33.47	130.82
	3/1/1992	—	96.00	95.57	0.43	35.16	130.82
	6/1/1992	—	94.95	94.65	0.3	36.11	130.82
	9/1/1992	—	95.51	95.11	0.4	35.63	130.82
	12/1/1992	—	95.14	94.87	0.27	35.90	130.82
	3/1/1993	—	93.30	ND	0	37.52	130.82
	5/1/1993	—	91.13	ND	0	39.69	130.82
	9/1/1993	—	89.45	89.44	0.01	41.38	130.82
	12/1/1993	—	87.94	87.93	0.01	42.89	130.82
	3/1/1994	—	84.70	84.69	0.01	46.13	130.82
	6/1/1994	—	82.99	82.98	0.01	47.84	130.82
	9/1/1994	—	83.03	ND	0	47.79	130.82

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MW-502	12/1/1994	—	83.40	ND	0	47.42	130.82
	3/1/1995	—	81.96	ND	0	48.86	130.82
	9/1/1995	—	81.05	ND	0	49.77	130.82
	12/1/1995	—	81.02	ND	0	49.80	130.82
	7/1/1996	—	79.83	ND	0	50.99	130.82
	12/1/1996	—	80.68	ND	0	50.14	130.82
	1/1/1998	—	79.78	ND	0	51.04	130.82
	8/1/1998	—	78.98	ND	0	51.84	130.82
	1/1/1999	—	76.73	ND	0	51.57	128.30
	7/1/1999	—	76.90	ND	0	51.40	128.30
	1/1/2000	—	81.56	ND	0	46.74	128.30
	7/1/2000	—	83.48	ND	0	44.82	128.30
	2/1/2001	—	84.42	ND	0	43.88	128.30
	7/1/2001	—	84.32	ND	0	43.98	128.30
	5/1/2002	—	85.70	ND	0	42.60	128.30
	9/1/2002	—	86.22	ND	0	40.08	128.30
	6/29/2004	104.00	93.31	93.26	0.05	35.03	128.30
MW-503 Abandoned	6/1/1988	—	92.55	ND	0	38.88	131.43
	9/1/1988	—	93.26	ND	0	38.17	131.43
	12/1/1988	—	94.74	ND	0	36.89	131.43
	3/1/1989	—	95.18	ND	0	36.25	131.43
	6/1/1989	—	95.50	ND	0	35.93	131.43
	9/1/1989	—	96.30	ND	0	35.13	131.43
	12/1/1989	—	97.16		0	34.27	131.43
	3/1/1990	—	97.54		0	33.89	131.43
	6/1/1990	—	97.30	ND	0	34.13	131.43
	9/1/1990	—	97.70	ND	0	33.73	131.43
	12/1/1990	—	98.27	ND	0	33.18	131.43
	3/1/1991	—	96.64	ND	0	34.79	131.43
	6/1/1991	—	95.79	ND	0	35.64	131.43
	9/1/1991	—	96.05	ND	0	35.38	131.43
	12/1/1991	—	95.80	ND	0	35.83	131.43
	3/1/1992	—	93.98	ND	0	37.45	131.43
	6/1/1992	—	93.01	ND	0	38.42	131.43
	9/1/1992	—	93.52	ND	0	37.91	131.43
	12/1/1992	—	93.11	ND	0	38.32	131.43
	3/1/1993	—	91.67	ND	0	39.76	131.43
	5/1/1993	—	88.78	ND	0	42.65	131.43
	9/1/1993	—	87.47	87.45	0.02	43.98	131.43
	12/1/1993	—	86.02	86.00	0.02	45.43	131.43
	3/1/1994	—	82.54	82.53	0.01	48.90	131.43
	6/1/1994	—	80.95	80.94	0.01	50.49	131.43
	9/1/1994	—	81.41	81.40	0.01	50.03	131.43
	12/1/1994	—	81.75	ND	0	49.68	131.43
	3/1/1995	—	80.10	ND	0	51.33	131.43

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MW-503	9/1/1995	—	79.34	ND	0	52.09	131.43
Abandoned	12/1/1995	—	79.37	ND	0	52.06	131.43
	7/1/1996	—	78.35	ND	0	53.08	131.43
	12/1/1996	—	79.31	ND	0	52.12	131.43
	1/1/1998	—	78.24	ND	0	53.19	131.43
	8/1/1998	—	77.45	ND	0	53.98	131.43
	1/1/1999	—	—	—	—	—	Well Destroyed
MW-503B	2/1/1999	—	77.05	ND	0	52.91	129.96
	7/1/1999	—	78.64	ND	0	51.32	129.96
	1/1/2000	—	62.58	ND	0	47.38	129.96
	7/1/2000	—	84.17	ND	0	45.79	129.96
	2/1/2001	—	85.06	ND	0	44.90	129.96
	7/1/2001	—	84.98	ND	0	44.98	129.96
	5/1/2002	—	86.32	ND	0	43.64	129.96
	9/1/2002	—	89.14	ND	0	40.82	129.96
	6/26/2004	109.00	93.97	ND	0	35.99	129.96
MW-504**	6/1/1988	—	92.56	90.73	1.83	42.73	133.83
	9/1/1988	—	93.98	92.41	1.57	41.11	133.83
	12/1/1988	—	94.70	92.83	1.87	40.63	133.83
	3/1/1989	—	96.25	93.50	2.75	39.78	133.83
	6/1/1989	—	94.36	92.16	2.2	41.23	133.83
	9/1/1989	—	99.21	97.15	2.06	36.27	133.83
	12/1/1989	—	96.80	95.45	1.35	38.11	133.83
	3/1/1990	—	97.10	95.72	1.38	37.83	133.83
	6/1/1990	—	95.75	95.13	0.62	38.58	133.83
	12/1/1990	—	97.47	96.31	1.16	37.97	134.51
	6/1/1991	—	95.20	ND	0	39.31	134.51
	9/1/1991	—	95.19	ND	0	39.32	134.51
	12/1/1991	—	95.08	ND	0	39.43	134.51
	3/1/1992	—	95.55	ND	0	38.96	134.51
	6/1/1992	—	92.28	ND	0	42.23	134.51
	9/1/1992	—	92.47	ND	0	42.04	134.51
	12/1/1992	—	92.32	ND	0	42.19	134.51
	3/1/1993	—	91.09	ND	0	43.42	134.51
	5/1/1993	—	88.78	ND	0	45.73	134.51
	9/1/1993	—	86.84	86.63	0.01	47.88	134.51
	11/1/1993	—	85.10	ND	0	49.41	134.51
	3/1/1994	—	82.26	82.25	0.01	52.26	134.51
	6/1/1994	—	80.43	ND	0	54.08	134.51
	9/1/1994	—	80.59	80.58	0.01	53.93	134.51
	12/1/1994	—	81.14	ND	0	53.37	134.51
	3/1/1995	—	80.06	ND	0	54.45	134.51
	9/1/1995	—	78.55	ND	0	55.96	134.51
	12/1/1995	—	78.76	ND	0	55.75	134.51
	7/1/1996	—	77.92	ND	0	56.59	134.51

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MW-504**	12/1/1996	—	79.15	78.85	0.3	55.60	134.51
	1/1/1998	—	78.00	77.98	0.02	56.53	134.51
	8/1/1998	—	77.00	76.98	0.02	57.53	134.51
	1/1/1999	—	77.56	77.46	0.1	57.03	134.51
	7/1/1999	—	79.12	78.63	0.49	55.78	134.51
	1/1/2000	—	82.88	82.20	0.68	52.17	134.51
	7/1/2000	—	84.90	83.96	0.94	50.36	134.51
	2/1/2001	—	—	86.24	—	—	134.51
	7/1/2001	—	86.47	84.58	1.89	49.55	134.51
	5/1/2002	—	87.20	86.10	1.1	48.19	134.51
	9/1/2002	—	89.38	88.35	1.03	45.95	134.51
	6/29/2004	118.00	94.56	93.65	0.91	40.68	134.51
MW-600 Abandoned	9/1/1990	—	91.48	90.31	1.17	29.51	120.05
	12/1/1990	—	92.43	90.79	1.64	28.93	120.05
	3/1/1991	—	89.88	89.00	0.88	30.87	120.05
	6/1/1991	—	89.35	88.45	0.9	31.42	120.05
	9/1/1991	—	89.84	88.76	0.88	31.11	120.05
	12/1/1991	—	88.91	88.58	0.33	31.40	120.05
	3/1/1992	—	87.09	86.89	0.2	33.12	120.05
	6/1/1992	—	86.26	86.12	0.14	33.90	120.05
	9/1/1992	—	86.90	86.89	0.21	33.32	120.05
	12/1/1992	—	86.02	86.00	0.02	34.05	120.05
	3/1/1993	—	84.63	ND	0	35.42	120.05
	5/1/1993	—	82.52	ND	0	37.53	120.05
	9/1/1993	—	80.99	80.98	0.01	39.07	120.05
	12/1/1993	—	79.49	79.48	0.01	40.57	120.05
	3/1/1994	—	76.01	76.00	0.01	44.05	120.05
	6/1/1994	—	74.40	74.39	0.01	45.66	120.05
	9/1/1994	—	74.73	74.72	0.01	45.33	120.05
	12/1/1994	—	74.90	74.84	0.06	45.20	120.05
	3/1/1995	—	73.85	73.03	0.62	46.90	120.05
	9/1/1995	—	73.69	73.30	0.39	46.67	120.05
	12/1/1995	—	72.02	ND	0	48.03	120.05
	7/1/1996	—	73.55	70.59	2.96	48.87	120.05
	12/1/1996	—	73.90	71.35	2.56	48.19	120.05
	1/1/1998	—	75.05	69.87	5.38	49.30	120.05
	8/1/1998	—	74.50	72.70	1.8	46.99	120.05
	1/1/1999	—	73.72	69.60	4.12	49.63	120.05
MW-600A	7/1/1999	—	77.55	77.32	0.23	42.97	120.34
	1/1/2000	—	77.80	76.77	1.03	43.36	120.34
	7/1/2000	—	78.99	78.59	0.4	42.07	120.34

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

GROUNDSWATER LEVEL MEASUREMENTS						
	Date	Location	Level (ft)	Depth (ft)	Specific Capacity (ft)	Recovery (ft)
MW-600A	2/1/2001	—	79.87	79.39	0.48	41.33
	7/1/2001	—	80.38	79.82	0.58	40.97
	5/1/2002	—	83.20	80.58	2.64	39.25
	9/1/2002	—	84.58	83.62	0.96	36.53
	6/29/2004	100.00	91.02	87.97	3.05	31.78
MW-601 Abandoned	9/1/1990	—	96.64	95.89	0.75	28.99
	12/1/1990	—	97.01	96.52	0.49	28.41
	3/1/1991	—	94.84	ND	0	30.19
	6/1/1991	—	94.27	ND	0	30.76
	9/1/1991	—	94.54	ND	0	30.49
	12/1/1991	—	94.30	ND	0	30.73
	3/1/1992	—	92.66	ND	0	32.37
	6/1/1992	—	91.81	ND	0	33.22
	9/1/1992	—	92.80	82.28	0.52	32.65
	12/1/1992	—	91.78	ND	0	33.25
	3/1/1993	—	90.38	ND	0	34.85
	5/1/1993	—	88.35	ND	0	36.88
	9/1/1993	—	86.76	86.75	0.01	38.26
	12/1/1993	—	85.36	85.35	0.01	39.68
	3/1/1994	—	82.01	82.00	0.01	43.03
	6/1/1994	—	80.30	80.25	0.05	44.77
	9/1/1994	—	80.50	80.40	0.1	44.61
	12/1/1994	—	80.65	80.52	0.13	44.48
	3/1/1995	—	79.08	78.98	0.1	46.03
	9/1/1995	—	78.36	78.11	0.25	46.87
	12/1/1995	—	78.07	ND	0	46.96
	7/1/1996	—	77.03	76.75	0.28	48.22
	12/1/1996	—	77.57	ND	0	47.46
	1/1/1998	—	76.79	76.40	0.39	48.55
	8/1/1998	—	76.29	76.05	0.24	48.93
	1/1/1999	—	76.62	75.95	0.67	48.95
MW-601A	7/1/1999	—	77.39	77.38	0.03	49.16
	1/1/2000	—	81.03	ND	0	45.50
	7/1/2000	—	82.72	82.70	0.02	43.83
	2/1/2001	—	83.73	83.71	0.02	42.82
	7/1/2001	—	84.07	ND	0	42.46
	5/1/2002	—	85.42	ND	0	41.11
	9/1/2002	—	87.91	ND	0	38.62
	6/29/2004	100.00	Dry	ND	0	Dry
MW-603	7/1/1996	—	72.01	ND	0	48.53
	12/1/1996	—	72.39	ND	0	46.15
	1/1/1998	—	71.33	ND	0	47.21
	8/1/1998	—	71.12	ND	0	47.42
	1/1/1999	—	77.71	ND	0	40.83
	7/1/1999	—	72.97	ND	0	45.57
	1/1/2000	—	76.87	ND	0	41.87
	7/1/2000	—	78.00	ND	0	40.54
	2/1/2001	—	78.48	ND	0	40.06

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MW-603	7/1/2001	-	79.14	ND	0	39.40	118.54
	5/1/2002	-	80.21	ND	0	38.33	118.54
	9/1/2002	-	83.86	ND	0	34.68	118.54
	6/29/2004	100.00	88.20	ND	0	30.34	118.54
MW-604	7/1/1996	-	88.79	ND	0	49.37	138.16
	12/1/1996	-	89.57	ND	0	48.59	138.16
	1/1/1998	-	88.61	ND	0	49.55	138.16
	8/1/1998	-	87.55	ND	0	50.61	138.16
	1/1/1999	-	87.88	ND	0	50.28	138.16
	7/1/1999	-	88.53	ND	0	49.63	138.16
	1/1/2000	-	92.10	ND	0	48.06	138.16
	7/1/2000	-	94.21	ND	0	43.95	138.16
	2/1/2001	-	95.65	ND	0	42.51	138.16
	7/1/2001	-	95.42	ND	0	42.74	138.16
	5/1/2002	-	96.79	ND	0	41.37	138.16
	9/1/2002	-	98.22	ND	0	39.94	138.16
	6/28/2004	103.00	102.32	ND	0	35.84	138.16
MW-605	7/1/1996	-	74.03	ND	0	40.51	114.54
	12/1/1996	-	74.06	ND	0	40.48	114.54
	1/1/1998	-	73.18	ND	0	41.35	114.54
	8/1/1998	-	73.18	ND	0	41.36	114.54
	1/1/1999	-	72.52	ND	0	42.02	114.54
	7/1/1999	-	74.62	ND	0	39.92	114.54
	1/1/2000	-	78.58	ND	0	35.96	114.54
	7/1/2000	-	79.54	ND	0	35.00	114.54
	2/1/2001	-	79.99	ND	0	34.55	114.54
	7/1/2001	-	80.83	ND	0	33.71	114.54
	5/1/2002	-	81.84	ND	0	32.70	114.54
	9/1/2002	-	85.70	ND	0	28.84	114.54
	6/28/2004	95.00	89.55	ND	0	24.99	114.54
MW-606	7/1/1996	-	77.19	ND	0	36.70	113.89
	12/1/1996	-	77.50	ND	0	36.39	113.89
	1/1/1998	-	75.92	ND	0	37.97	113.89
	8/1/1998	-	75.93	ND	0	37.96	113.89
	1/1/1999	-	75.26	ND	0	38.63	113.89
	7/1/1999	-	77.19	ND	0	36.70	113.89
	1/1/2000	-	80.87	ND	0	33.02	113.89
	7/1/2000	-	82.12	ND	0	31.77	113.89
	2/1/2001	-	82.70	ND	0	31.19	113.89
	7/1/2001	-	83.55	ND	0	30.34	113.89
	5/1/2002	-	84.69	ND	0	29.20	113.89
	9/1/2002	-	88.55	ND	0	25.34	113.89
	6/28/2004	100.00	92.01	ND	0	21.88	113.89
MW-607	7/1/1996	-	86.88	ND	0	39.15	126.03
	12/1/1996	-	87.56	ND	0	38.47	126.03
	1/1/1998	-	86.50	ND	0	39.53	126.03
	8/1/1998	-	85.64	ND	0	40.39	126.03
	1/1/1999	-	85.88	ND	0	40.15	126.03

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

GROUNDSWATER LEVEL MEASUREMENTS (FEET)						
	Date	Level (ft)	Method	Depth (ft)	Specific Capacity (ft)	Recovery (ft)
MW-607	7/1/1999	—	86.52	ND	0	39.51
	1/1/2000	—	90.40	ND	0	35.63
	7/1/2000	—	92.02	ND	0	34.01
	2/1/2001	—	93.53	ND	0	32.50
	7/1/2001	—	93.58	ND	0	32.45
	5/1/2002	—	95.30	ND	0	30.73
	9/1/2002	—	98.05	ND	0	27.98
	6/28/2004	107.00	102.29	ND	0	23.74
						126.03
W-1	12/1/1996	—	90.10	ND	0	52.79
	1/1/1998	—	89.28	ND	0	53.61
	8/1/1998	—	88.19	ND	0	54.70
	1/1/1999	—	88.62	ND	0	54.27
	7/1/1999	—	89.25	ND	0	53.64
	1/1/2000	—	91.80	ND	0	51.09
	7/1/2000	—	94.00	ND	0	48.89
	2/1/2001	—	95.33	ND	0	47.56
	7/1/2001	—	95.32	ND	0	47.57
	5/1/2002	—	96.70	ND	0	46.19
	9/1/2002	—	97.77	ND	0	45.12
	6/28/2004	129.00	100.66	ND	0	42.23
						142.89
W-2 Abandoned	12/1/1996	—	88.72	ND	0	50.59
	1/1/1998	—	87.95	ND	0	51.36
	8/1/1998	—	86.95	ND	0	52.36
W-3 Abandoned	12/1/1996	—	90.98	ND	0	45.13
	1/1/1998	—	89.95	ND	0	46.16
W-3A**	8/1/1998	—	91.14	ND	0	32.86
	1/1/1999	—	91.55	ND	0	32.45
	7/1/1999	—	92.21	ND	0	31.79
	1/1/2000	—	95.85	ND	0	28.35
	7/1/2000	—	97.10	97.14	0.04	26.93
	2/1/2001	—	98.26	ND	0	25.74
	7/1/2001	—	98.20	ND	0	25.80
	5/1/2002	—	100.39	99.28	1.11	24.50
	9/1/2002	—	102.59	100.80	1.79	22.84
	6/29/2004	115.00	102.71	101.30	1.41	22.42
						124.00
W-4	12/1/1996	—	92.88	ND	0	49.50
	1/1/1998	—	92.01	ND	0	50.37
	8/1/1998	—	90.90	ND	0	51.48
	1/1/1999	—	91.31	ND	0	51.07
	7/1/1999	—	91.90	ND	0	50.48
	1/1/2000	—	94.66	ND	0	47.72
	7/1/2000	—	96.88	ND	0	45.50
						142.38

TABLE D1-A
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (PREVIOUS CONSULTANTS)
FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Groundwater Level Measurements (ft msl)							
	Date	Depth to Water (ft)	Top of Casing (ft)	Hydrocarbon Thickness (ft)	Water Level (ft)	Gradient (ft/ft)	Notes
W-4	2/1/2001	—	98.20	ND	0	44.18	142.38
	7/1/2001	—	98.04	ND	0	44.34	142.38
	5/1/2002	—	99.43	ND	0	42.95	142.38
	9/1/2002	—	100.60	ND	0	41.78	142.38
	6/28/2004	132.00	102.13	ND	0	40.25	142.38
EW-1	8/1/1998	—	85.99	ND	0	26.41	112.40
	1/1/1999	—	86.22	ND	0	26.18	112.40
	7/1/1999	—	86.51	ND	0	25.89	112.40
	1/1/2000	—	86.29	86.21	0.08	24.17	112.40
	7/1/2001	—	93.92	91.31	2.61	20.57	112.40
	5/1/2002	—	94.39	92.78	1.61	19.30	112.40
	9/1/2002	—	95.49	93.38	2.11	18.60	112.40
	6/29/2004	113.50	98.33	96.15	2.18	15.81	112.40

NOTES:

Table reproduced from Revised Master Work Plan by Versar, Inc., dated January, 2000, with additional data added.

Groundwater elevation = (top of casing elevation - depth to water) + (0.8 x hydrocarbon thickness) for Haley & Aldrich, Inc., and ARCADIS BBL sampling events

Groundwater elevation correction for the presence of free product was performed assuming a specific gravity of 0.8 for the petroleum product.

NA = not applicable

NM = not measured

— = data not provided in former reports

ND = not detected

*Damage to casing of monitoring well MW-204 was discovered in October 2005, casing above ground was cut in order to collect groundwater sample;

top of casing has not yet been resurveyed

**Sheen developed during sampling of monitoring wells MW-504 and W-3A.

***Former production wells W-7 and W-8 were never surveyed and are not used in calculating groundwater gradients (screened in a deeper aquifer).

msl = mean sea level

TABLE D1-B
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	Elevation (ft)		Elevation (ft)		Notes	
		Surf	Bottom	Surf	Bottom		
EW-1*	10/4/2005	NM	100.12	98.40	1.72	13.66	112.40
	2/13/2006	NM	99.55	98.89	0.66	13.38	112.40
	8/2/2006	112.37	98.65	ND	Sheen	13.75	112.40
	11/6/2006	112.32	98.42	ND	0	13.98	112.40
	2/5/2007	112.29	98.16	ND	0	14.24	112.40
	5/7/2007	112.28	97.88	ND	0	14.52	112.40
	8/6/2007	112.31	97.78	NA	Sheen	14.62	112.40
	11/2/2007	112.4	98.21	NA	0	14.19	112.40
	2/1/2008	112.58	98.61	NA	0	13.79	112.40
	1/12/2009	112.35	100.17	NA	Sheen	12.23	112.40
	10/4/2005	92.70	Dry	ND	0	Dry	135.23
	2/13/2006	90.20	Dry	ND	0	Dry	135.23
MW-101	7/31/2006	90.22	88.61	ND	0	46.62	135.23
	11/6/2006	90.31	88.52	ND	0	46.71	135.23
	2/5/2007	90.65	88.20	ND	0	47.03	135.23
	5/7/2007	90.30	87.63	ND	0	47.60	135.23
	8/6/2007	90.16	88.03	NA	0	47.20	135.23
	11/2/2007	90.84	89.6	NA	0	45.83	135.23
	2/1/2008	91.05	90.61	NA	0	44.62	135.23
	1/12/2009	90.78	90.93	NA	0	Dry	135.23
	10/4/2005	94.55	Dry	ND	0	Dry	136.95
	2/13/2006	94.38	Dry	ND	0	Dry	136.95
	7/31/2006	94.58	93.32	ND	0	43.63	136.95
MW-103	11/6/2006	94.81	93.03	ND	0	43.92	136.95
	2/5/2007	94.31	92.83	ND	0	44.12	136.95
	5/7/2007	94.81	92.29	ND	0	44.66	136.95
	8/6/2007	94.84	92.42	NA	0	44.53	136.95
	11/2/2007	94.82	93.59	NA	0	43.38	136.95
	2/1/2008	94.98	94.7	NA	0	42.25	136.95
	1/12/2009	94.92	Dry	NA	0	Dry	136.95
	10/4/2005	97.60	89.85	ND	0	51.31	141.16
	2/13/2006	98.05	89.66	ND	0	51.50	141.16
	7/31/2006	Well temporarily capped/covered below ground surface for temporary roadway. Will be extended above surface following road use completion.					
	11/6/2006	Well temporarily capped/covered below ground surface for temporary roadway. Will be extended above surface following road use completion.					
MW-104A	2/5/2007	100.20	88.35	ND	0	55.04	143.39
	5/7/2007	99.93	88.09	ND	0	55.30	143.39
	8/6/2007	100.02	87.84	NA	0	55.55	143.39
	11/2/2007	100.14	88.32	NA	0	55.07	143.39
	2/1/2008	100.35	88.91	NA	0	54.48	143.39
	1/12/2009	100.56	90.91	NA	0	52.48	143.39
	10/4/2005	100.15	91.03	ND	0	47.60	138.63
	2/13/2006	100.10	89.95	ND	0	48.68	138.63
	7/31/2006	100.04	87.99	ND	0	50.64	138.63
	11/6/2006	100.25	87.91	ND	0	50.72	138.63
MW-105	2/5/2007	99.22	87.66	ND	0	50.97	138.63
	5/7/2007	100.32	87.11	ND	0	51.52	138.63
	8/6/2007	100.28	87.46	NA	0	51.17	138.63
	11/2/2007	100.51	88.99	NA	0	49.64	138.63
	2/1/2008	100.88	90.69	NA	0	47.94	138.63
	1/12/2009	100.58	95.68	NA	0	42.95	138.63

TABLE D1-8
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Sampling Date	Groundwater Level Measurements (ft)				Elevation (ft)						
		10/4/2005	2/13/2006	8/2/2006	11/6/2006	2/5/2007	5/7/2007	8/6/2007	11/2/2007	2/1/2008	1/12/2009	Elevation (ft)
MW-106A	10/4/2005	Well reinstalled following Feb. 2006 sampling event				148.41						
	2/13/2006					148.41						
	8/2/2006	110.22	96.72	ND	0	55.79	152.51					
	11/6/2006	110.28	96.17	ND	0	56.34	152.51					
	2/5/2007	110.08	95.9	ND	0	56.61	152.51					
	5/7/2007	110.21	95.51	ND	0	57.00	152.51					
	8/6/2007	110.19	95.33	NA	0	57.18	152.51					
	11/2/2007	110.3	95.86	NA	0	56.65	152.51					
	2/1/2008	110.51	96.39	NA	0	56.12	152.51					
	1/12/2009	110.41	99.12	NA	0	53.39	152.51					
MW-107A	10/4/2005	Well reinstalled following Feb. 2006 sampling event				148.93						
	2/13/2006					148.93						
	8/2/2006	109.79	96.88	ND	0	49.83	148.71					
	11/6/2006	109.6	96.65	ND	0	50.06	146.71					
	2/5/2007	109.69	96.41	ND	0	50.30	146.71					
	5/7/2007	109.52	96.09	ND	0	50.62	146.71					
	8/6/2007	109.66	95.95	NA	0	50.76	146.71					
	11/2/2007	109.09	96.46	NA	0	50.25	146.71					
	2/1/2008	109.39	96.82	NA	0	49.89	146.71					
	1/12/2009	109.43	98.56	NA	0	48.15	146.71					
MW-201	10/4/2005	101.52	93.07	ND	0	39.84	132.91					
	2/13/2006	93.69	91.80	ND	0	41.11	132.91					
	7/31/2006	93.79	89.88	ND	0	43.03	132.91					
	11/6/2006	101.76	89.83	ND	0	43.08	132.91					
	2/5/2007	100.95	89.34	ND	0	43.57	132.91					
	5/7/2007	100.86	88.79	ND	0	44.12	132.91					
	8/6/2007	101.81	89.43	NA	0	43.48	132.91					
	11/2/2007	101.71	91.04	NA	0	41.87	132.91					
	2/1/2008	101.49	92.3	NA	0	40.61	132.91					
	1/12/2009	101.49	98.89	NA	0	38.02	132.91					
MW-202	10/4/2005	92.59	Dry	ND	0	Dry	137.89					
	2/13/2006	92.64	Dry	ND	0	Dry	137.89					
	7/31/2006	92.81	Dry	ND	0	Dry	137.89					
	11/6/2006	92.74	Dry	ND	0	Dry	137.89					
	2/5/2007	92.68	Dry	ND	0	Dry	137.89					
	5/7/2007	92.69	Dry	ND	0	Dry	137.89					
	8/6/2007	92.80	Dry	NA	0	Dry	137.89					
	11/2/2007	92.87	Dry	NA	0	Dry	137.89					
	2/1/2008	92.53	Dry	NA	0	Dry	137.89					
	1/12/2009	92.81	Dry	NA	0	Dry	137.89					
MW-203	10/4/2005	Well reinstalled following Feb. 2006 sampling event				143.89						
	2/13/2006					143.89						
	8/2/2006	102.55	94.12	ND	0	49.31	143.43					
	11/6/2006	102.39	94	ND	0	49.43	143.43					
	2/5/2007	102.43	93.84	ND	0	49.59	143.43					
	5/7/2007	102.40	93.65	ND	0	49.78	143.43					
	8/6/2007	102.20	93.57	NA	0	49.86	143.43					
	11/2/2007	102.55	94.19	NA	0	49.24	143.43					
	2/1/2008	102.66	94.78	NA	0	48.65	143.43					
	1/12/2009	102.57	98.68	NA	0	48.75	143.43					

TABLE D1-B
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Monitoring Well	Date	Water Level (ft)		Elevation (ft)	Depth to Water (ft)	Notes
		Specific Conductance	Temperature (°C)			
MW-204**	10/4/2005	99.68	97.86	ND	0	42.28
	2/13/2006	98.72	95.24	ND	0	NA
	7/31/2006	98.97	93.27	ND	0	NA
	11/6/2006	98.67	92.99	ND	0	NA
	2/5/2007	99.89	94.32	ND	0	47.86
	5/7/2007	99.83	93.79	ND	0	48.39
	8/8/2007	NM	NM	NM	NM	142.18
	11/2/2007	98.42	95.05	NA	0	47.13
	2/1/2008	103.52	96.55	NA	0	45.63
	1/12/2009	102.59	100.80	NA	0	41.58
	10/4/2005	98.25	92.00	ND	0	46.04
	2/13/2006	98.32	90.92	ND	0	47.12
MW-205	7/31/2006	98.43	88.99	ND	0	49.05
	11/6/2006	98.62	88.75	ND	0	49.29
	2/5/2007	98.31	88.52	ND	0	49.52
	5/7/2007	98.71	88.08	ND	0	49.96
	8/8/2007	98.47	88.42	NA	0	49.82
	11/2/2007	98.68	89.86	NA	0	48.18
	2/1/2008	98.62	91.33	NA	0	46.71
	1/12/2009	98.48	98.15	NA	0	41.89
	10/4/2005	92.58	Dry	ND	0	Dry
	2/13/2006	92.60	Dry	ND	0	Dry
	7/31/2006	92.71	91.74	ND	0	NA
MW-501A	11/6/2006	93.13	91.65	ND	0	NA
	2/5/2007	93.05	91.02	ND	0	NA
	5/7/2007	93.21	90.39	ND	0	38.31
	8/8/2007	93.19	91.03	NA	0	37.87
	11/2/2007	93.23	92.58	NA	0	36.11
	2/1/2008	93.25	93.05	NA	0	35.85
	1/12/2009	93.43	93.31	NA	0	Dry
	10/4/2005	100.49	94.90	ND	0	33.40
	2/13/2006	100.56	93.40	ND	0	34.90
	7/31/2006	100.54	91.49	ND	0	36.81
MW-502	11/6/2006	100.78	91.46	ND	0	36.84
	2/5/2007	99.95	90.80	ND	0	37.50
	5/7/2007	100.88	90.15	ND	0	38.15
	8/8/2007	100.88	90.98	NA	0	37.32
	11/2/2007	100.96	92.58	NA	0	35.72
	2/1/2008	100.89	93.67	NA	0	34.63
	1/12/2009	NM	98.30	98.15	0.15	30.12
	10/4/2005	108.60	95.34	ND	0	34.62
	2/13/2006	108.79	93.79	ND	0	36.17
	7/31/2006	108.88	91.93	ND	0	38.03
MW-503B	11/6/2006	108.82	91.91	ND	0	38.05
	2/5/2007	108.79	91.28	ND	0	38.68
	5/7/2007	108.80	90.63	ND	0	39.33
	8/8/2007	108.91	91.50	NA	0	38.46
	11/2/2007	108.92	93.17	NA	0	36.79
	2/1/2008	108.89	94.29	NA	0	35.67
	1/12/2009	109.05	98.71	NA	Sheen	31.25
	10/4/2005	108.60	95.34	ND	0	34.62
	2/13/2006	108.79	93.79	ND	0	36.17
	7/31/2006	108.88	91.93	ND	0	38.03

TABLE D1-B
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Monitoring Well	Date	Elevation (ft)		Elevation (ft)		Elevation (ft)
		Water Level	Storage	Water Level	Storage	
MW-504*	10/4/2005	95.85	95.12	NM	NM	134.51
	2/13/2006	95.95	93.80	ND	Sheen	40.71
	7/31/2006	95.90	91.81	ND	0	42.70
	11/6/2006	95.89	91.71	ND	Sheen	42.80
	2/5/2007	95.81	91.26	ND	0	43.25
	5/7/2007	96.30	90.69	ND	0	43.82
	8/6/2007	96.11	91.19	NA	0	43.32
	11/2/2007	96.11	92.68	NA	0	41.83
	2/1/2008	96.15	94.03	NA	0	40.48
	1/12/2009	96.18	Dry	NA	0	Dry
						134.51
MW-600A	10/4/2005	NM	92.62	89.48	3.18	30.25
	2/14/2006	NM	91.15	87.92	3.23	31.77
	7/31/2006	NM	88.87	86.35	2.52	33.48
	11/6/2006	NM	89.28	86.26	3.02	33.48
	2/5/2007	NM	88.48	85.52	2.98	34.23
	5/7/2007	NM	85.61	85.49	0.12	34.83
	8/6/2007	NM	86.86	86.36	0.5	33.88
	11/5/2007	NM	88.01	87.99	0.02	32.35
	2/1/2008	93.11	88.92	NA	0.00	31.42
	1/12/2009	93.00	92.88	NA	0	Dry
						120.34
MW-601A	10/4/2005	89.40	Dry	ND	0	Dry
	2/13/2006	89.65	Dry	ND	0	Dry
	7/31/2006	89.90	Dry	ND	0	Dry
	11/6/2006	84.91	Dry	ND	0	Dry
	2/5/2007	89.66	Dry	ND	0	Dry
	5/7/2007	89.66	Dry	ND	0	Dry
	8/6/2007	89.82	Dry	NA	0	Dry
	11/2/2007	89.83	Dry	NA	0	Dry
	2/1/2008	89.79	Dry	NA	0	Dry
	1/12/2009	89.99	Dry	NA	0	Dry
						126.53
MW-603	10/4/2005	97.28	89.53	ND	0	29.01
	2/13/2006	96.90	88.49	ND	0	30.05
	7/31/2006	97.15	85.88	ND	0	32.66
	11/6/2006	96.98	85.97	ND	0	32.57
	2/5/2007	97.85	85.01	ND	0	33.53
	5/7/2007	97.68	84.24	ND	0	34.30
	8/6/2007	97.80	85.81	NA	0	32.73
	11/2/2007	97.91	87.75	NA	0	30.79
	2/1/2008	97.82	88.3	NA	0	30.24
	1/13/2009	97.93	92.84	NA	0	25.70
						118.54
MW-604	10/4/2005	103.14	102.78	ND	0	35.38
	2/13/2006	103.25	Dry	ND	0	Dry
	7/31/2006	103.13	Dry	ND	0	Dry
	11/6/2006	103.26	102.35	ND	0	35.81
	2/5/2007	103.16	101.91	ND	0	36.25
	5/7/2007	103.20	101.28	ND	0	36.88
	8/6/2007	103.37	101.33	NA	0	36.83
	11/2/2007	103.51	102.36	NA	0	35.80
	2/1/2008	103.58	102.93	NA	0	35.23
	1/12/2009	103.49	Dry	NA	0	Dry
						138.16

TABLE D1-B
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Monitoring Well	Date	Elevation (ft)		Depth to Water (ft)	Gauge reading (ft)	Notes
		Top	Bottom			
MW-605	10/4/2005	94.03	91.22	ND	0	23.32
	2/13/2006	94.00	88.91	ND	0	25.63
	7/31/2006	94.26	88.45	ND	0	26.09
	11/6/2006	94.06	87.54	ND	0	27.00
	2/5/2007	93.96	86.32	ND	0	26.22
	5/7/2007	92.90	85.54	ND	0	29.00
	8/6/2007	94.00	87.39	NA	0	27.15
	11/2/2007	94.32	89.39	NA	0	25.15
	2/1/2008	94.11	89.76	NA	0	24.78
	1/12/2009	94.26	93.79	NA	0	20.75
						114.54
MW-606	10/4/2005	99.16	94.21	ND	0	19.68
	2/13/2006	99.30	91.98	ND	0	21.91
	7/31/2006	99.19	90.30	ND	0	23.59
	11/6/2006	99.00	90.61	ND	0	23.28
	2/5/2007	99.21	89.30	ND	0	24.59
	5/7/2007	99.19	88.40	ND	0	25.49
	8/6/2007	99.27	90.21	NA	0	23.68
	11/2/2007	99.11	92.26	NA	0	21.63
	2/1/2008	99.41	92.79	NA	0	21.10
	1/12/2009	99.56	96.93	NA	0	16.96
						113.89
MW-607	10/4/2005	106.80	104.78	ND	0	21.25
	2/13/2006	106.61	103.34	ND	0	22.69
	7/31/2006	106.96	101.07	ND	0	24.96
	11/6/2006	106.95	101.43	ND	0	24.60
	2/5/2007	106.19	100.57	ND	0	25.46
	5/7/2007	106.87	99.61	ND	0	26.42
	8/6/2007	106.34	100.51	NA	0	25.62
	11/2/2007	106.95	102.42	NA	0	23.61
	2/1/2008	107.06	103.43	NA	0	22.80
	1/12/2009	107.56	107.04	NA	0	Dry
						126.03
W-1	10/4/2005	129.63	102.95	ND	0	39.94
	2/13/2006	129.61	102.60	ND	0	40.29
	7/31/2006	129.84	101.48	ND	0	41.41
	11/6/2006	129.73	101.12	ND	0	41.77
	2/5/2007	129.75	100.66	ND	0	42.23
	5/7/2007	129.64	100.11	ND	0	42.78
	8/6/2007	129.60	100.20	NA	0	42.69
	11/2/2007	129.87	101.01	NA	0	41.88
	2/1/2008	129.95	101.62	NA	0	41.27
	1/12/2009	129.87	105.51	NA	0	37.38
						142.89
W-3A*	10/4/2005	104.55	104.55	103.55	1.00	20.25
	2/13/2006	104.60	102.78	ND	Sheen	21.22
	7/31/2006	104.88	101.30	ND	0	22.70
	11/6/2006	106.51	101.16	ND	0	22.84
	2/5/2007	110.40	100.62	ND	0	23.38
	5/7/2007	110.43	100.04	ND	Sheen	23.96
	8/6/2007	110.36	100.53	NA	0	23.47
	11/2/2007	111.67	101.78	NA	0	22.22
	2/1/2008	111.54	102.55	NA	0	21.45
	1/12/2009	111.65	105.86	NA	0	18.14
						124.00

TABLE D1-B
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

W-4	10/4/2005	129.07	104.36	ND	0	38.02	142.38
	2/13/2006	129.54	103.91	ND	0	38.47	142.38
	7/31/2006	129.60	102.66	ND	0	39.72	142.38
	11/6/2006	129.51	102.21	ND	0	40.17	142.38
	2/5/2007	129.09	101.82	ND	0	40.56	142.38
	5/7/2007	129.62	101.36	ND	0	41.02	142.38
	8/8/2007	129.61	101.37	NA	0	41.01	142.38
	11/2/2007	129.78	102.23	NA	0	40.15	142.38
	2/1/2008	129.83	103.03	NA	0	39.35	142.38
	4/12/2009	129.86	105.86	NA	0	36.52	142.38
W-7***	10/4/2005	NM	87.97	ND	0	NA	NM
	2/13/2006	NM	85.63	ND	0	NA	NM
	7/31/2006	NM	85.05	ND	0	NA	NM
	11/6/2006	NM	91.19	ND	0	NA	NM
	2/5/2007	NM	82.98	ND	0	NA	NM
	5/7/2007	NM	82.85	ND	0	NA	NM
	8/8/2007	NM	90.74	NA	0	NA	NM
	11/2/2007	NM	96.25	NA	0	NA	NM
	2/1/2008	NM	99.07	NA	0	NA	NM
	4/12/2009	NM	101.11	NA	0	NA	NM
W-8***	10/4/2005	NM	66.18	ND	0	NA	NM
	2/13/2006	NM	69.11	ND	0	NA	NM
	7/31/2006	NM	67.20	ND	0	NA	NM
	11/6/2006	NM	70.21	ND	0	NA	NM
	2/5/2007	NM	64.04	ND	0	NA	NM
	5/7/2007	NM	62.96	ND	0	NA	NM
	8/8/2007	NM	70.73	NA	0	NA	NM
	11/2/2007	NM	76.59	NA	0	NA	NM
	2/1/2008	NM	77.92	NA	0	NA	NM
	4/12/2009	NM	82.63	NA	0	NA	NM
W-9	11/6/2006	110.44	84.95	ND	0	NA	NM
	2/5/2007	110.19	84.65	ND	0	54.47	139.12
	5/7/2007	110.07	84.35	ND	0	54.77	139.12
	8/8/2007	110.13	84.11	NA	0	55.01	139.12
	11/2/2007	110.18	84.51	NA	0	54.61	139.12
	2/1/2008	110.11	85.04	NA	0	54.06	139.12
	4/12/2009	110.06	87.07	NA	0	52.05	139.12
W-10	11/6/2006	110.22	88.35	ND	0	NA	NM
	2/5/2007	110.33	88.16	ND	0	51.83	139.99
	5/7/2007	109.82	87.80	ND	0	52.39	139.99
	8/8/2007	109.59	87.79	NA	0	52.20	139.99
	11/2/2007	109.75	89.06	NA	0	50.91	139.99
	2/1/2008	110.20	90.65	NA	0	49.34	139.99
W-11	4/12/2009	110.41	95.19	NA	0	44.80	139.99
	11/6/2006	112.83	91.41	ND	0	NA	NM
	2/5/2007	112.85	91.24	ND	0	50.05	141.29
	5/7/2007	112.30	90.60	ND	0	50.69	141.29
	8/8/2007	112.65	90.93	NA	0	50.36	141.29
W-11	11/2/2007	112.84	92.39	NA	0	48.90	141.29
	2/1/2008	112.81	93.91	NA	Sneak	47.38	141.29
	4/12/2009	NM	99.26	98.83	0.43	42.37	141.29

TABLE D1-B
HISTORICAL GROUNDWATER DATA
SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS (ARCADIS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

W-12	11/6/2006	116.21	94.25	ND	0	NA	NM
	2/5/2007	116.09	93.93	ND	0	50.49	144.42
	5/7/2007	115.90	93.44	ND	0	50.98	144.42
	8/6/2007	115.89	93.69	NA	0	50.73	144.42
	11/2/2007	115.98	94.83	NA	0	49.59	144.42
	2/1/2008	115.98	96.08	NA	0	48.34	144.42
	1/12/2009	115.97	100.51	NA	0	43.91	144.42
W-14A	2/1/2008	108.16	89.05	NA	0	NA	NM
	1/12/2009	112.08	93.31	NA	0	NA	NM
W-14B	2/1/2008	166.44	87.23	NA	0	NA	NM
	1/12/2009	166.54	91.71	NA	0	NA	NM
W-14C	2/1/2008	194.82	87.41	NA	0	NA	NM
	1/12/2009	194.92	92.03	NA	0	NA	NM
W-15A	2/1/2008	125.21	107.40	NA	0	NA	NM
	1/12/2009	125.56	111.38	NA	0	NA	NM
W-15B	2/1/2008	155.66	107.32	NA	0	NA	NM
	1/12/2009	155.57	111.25	NA	0	NA	NM
W-15C	2/1/2008	197.61	107.50	NA	0	NA	NM
	1/12/2009	197.66	111.48	NA	0	NA	NM
W-16A****	11/2/2007	122.91	103.41	NA	0	NA	NM
	2/1/2008	122.96	103.99	NA	0	NA	NM
	1/12/2009	123.07	106.72	NA	0	NA	NM
W-16B****	11/2/2007	160.10	117.87	NA	0	NA	NM
	2/1/2008	160.02	116.98	NA	0	NA	NM
	1/12/2009	160.12	121.25	NA	0	NA	NM
W-16C****	11/2/2007	196.19	117.88	NA	0	NA	NM
	2/1/2008	196.21	116.44	NA	0	NA	NM
	1/12/2009	196.32	121.04	NA	0	NA	NM
W-17A	2/14/2008	108.31	89.79	NA	0	NA	NM
	1/12/2009	108.23	94.03	NA	0	NA	NM
W-17B	2/14/2008	169.18	103.45	NA	0	NA	NM
	1/12/2009	169.56	109.84	NA	0	NA	NM
W-17C	2/14/2008	200.60	103.47	NA	0	NA	NM
	1/12/2009	200.61	109.93	NA	0	NA	NM

NOTES:

Groundwater elevation = (top of casing elevation - depth to water) + (0.8 x hydrocarbon thickness) for Healey & Aldrich, Inc., and ARCADIS sampling events.

Groundwater elevation correction for the presence of free product was performed assuming a specific gravity of 0.8 for the petroleum product.

NA = not applicable

NM = not measured

ND = not detected

*Where specifically indicated under the hydrocarbon thickness column, a sheen developed during sampling.

**Damage to casing was discovered in October 2008; casing above ground was cut in order to collect groundwater sample;

***top of casing was not resurveyed until February 2007.

****Former production well; never surveyed and are not used in calculating groundwater gradients (screened in a deeper aquifer).

***** W-16A,B,C were installed in October 2007 while W-14A,B,C, W-15A,B,C and W-17A,B,C were installed between November 2007 and February 2008.

msl = mean sea level

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

**FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPHg	TPHd	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl-benzene	Total Xylenes	<i>o</i> -Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichlorodifluorométhane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB
Operational Area 1: Bloomfield Property																									
MW-106	12/20/1995	0.79	—	ND<10	—	—	0.012	0.0035	0.01	0.01	—	—	—	—	—	0.033	—	—	—	—	—	—	—	—	—
	7/31/1996	0.6	—	—	0.036	—	0.014	0.0022	0.009	ND<0.005	—	—	ND<0.0003	—	ND<0.0003	—	0.026	ND<0.0003	—	ND<0.0003	ND<0.0003	ND<0.0003	0.00054	ND<0.0003	—
12/17/1996	0.36	—	—	ND<0.002	—	0.0031	ND<0.002	ND<0.002	ND<0.004	—	—	ND<0.002	ND<0.002	ND<0.002	—	0.063	ND<0.002	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	0.027	
1/20/1998	0.8	—	—	ND<0.005	—	0.024	ND<0.005	0.0081	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.046	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.073	
8/20/1998	1	—	—	ND<0.005	—	0.027	ND<0.005	0.084	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.43	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.098	
1/27/1999	1.1	—	—	ND<0.005	—	21	ND<0.005	0.0085	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.047	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.09
7/19/1999	0.89	—	—	ND<0.001	—	0.018	ND<0.001	0.0077	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.039	ND<0.001	—	ND<0.001	0.0017	ND<0.0005	0.0012	ND<0.001	0.007	
1/14/2000	1	—	—	ND<0.001	—	0.0041	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.02	ND<0.001	—	ND<0.001	0.0022	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	
7/31/2000	ND<0.5	—	—	ND<0.001	—	0.0053	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.026	ND<0.001	—	ND<0.001	0.0027	ND<0.0005	ND<0.001	ND<0.001	0.001	
2/6/2001	0.53	—	—	ND<0.001	—	0.0023	ND<0.001	0.0013	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.035	ND<0.001	—	ND<0.001	0.002	ND<0.0005	0.0012	ND<0.001	ND<0.001	
7/24/2001	0.47	—	—	ND<0.001	—	0.0017	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.004	ND<0.001	ND<0.001	—	0.033	ND<0.001	—	ND<0.001	0.0018	ND<0.0005	0.001	ND<0.001	0.0018	
5/7/2002	0.43	—	—	ND<0.001	38	0.0024	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	ND<1	0.22	ND<0.001	—	ND<0.001	0.0016	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	
9/24/2002	0.12	—	—	ND<0.001	28	0.0035	ND<0.001	ND<0.001	ND<0.002	—	—	ND<0.001	ND<0.001	ND<0.001	ND<1	0.024	ND<0.001	—	ND<0.001	0.0021	ND<0.0005	0.0011	ND<0.001	ND<0.001	
7/1/2004	0.26	—	—	ND<0.005	ND<0.1	0.023J	ND<0.007	0.0011	ND<0.001	—	—	ND<0.005	—	ND<0.005	ND<0.005	0.015	ND<0.005	ND<0.005	—	0.022J	ND<0.005	0.002J	ND<0.005	ND<0.005	
MW-107	12/21/1995	ND<0.5	—	ND<10	—	—	0.016	0.0059	0.0077	0.0029	—	—	—	—	—	0.028	—	—	—	—	—	—	—	—	—
	7/31/1996	0.6	—	—	0.11	—	0.031	0.0044	0.0066	ND<0.005	—	—	ND<0.003	—	ND<0.003	—	0.031	ND<0.003	—	ND<0.003	ND<0.003	ND<0.003	0.0045	ND<0.003	—
12/17/1996	0.38	—	—	ND<0.002	—	0.022	ND<0.005	ND<0.005	ND<0.01	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.08	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
1/20/1998	0.83	—	—	ND<0.005	—	0.042	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.12	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
8/20/1998	0.83	—	—	ND<0.005	—	0.028	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.098	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.062	
1/27/1999	1.1	—	—	ND<0.005	—	0.036	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.1	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.069	
7/19/1999	0.82	—	—	ND<0.005	—	0.038	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.12	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.05	
1/12/2000	1.7	—	—	ND<0.001	—	0.087	ND<0.001	0.0078	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.12	ND<0.001	—	ND<0.001	0.0016	ND<0.0005	0.0011	ND<0.001	0.011	
7/31/2000	1.7	—	—	ND<0.005	—	0.25	ND<0.005	0.02	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.043	ND<0.005	—	ND<0.005	0.0083	ND<0.0025	ND<0.005	ND<0.005	0.048	
2/6/2001	2.1	—	—	ND<0.001	—	0.18	ND<0.001	0.004	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.045	ND<0.001	—	ND<0.001	0.02	ND<0.0005	ND<0.001	ND<0.001	0.054	
7/26/2001	2	—	—	ND<0.002	—	0.22	ND<0.001	0.038	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.033	ND<0.001	—	ND<0.001	0.033	ND<0.0005	ND<0.001	ND<0.001	0.051	
5/9/2002	2.1	—	—	ND<0.002	26	0.31	ND<0.002	0.003	ND<0.002	—	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	0.0088	ND<0.002	—	ND<0.002	0.021	ND<0.0005	ND<0.002	ND<0.002	0.045	
9/25/2002	2.2	—	—	ND<0.002	20	0.77	ND<0.002	0.0057	ND<0.0005	ND<0.0005	—	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	0.0058	ND<0.002	—	ND<0.002	0.03	ND<0.0005	ND<0.002	ND<0.002	0.063
7/1/2004	—	—	—	—	—	—	—	—	—	—	—	ND<0.005	—	ND<0.005	—	0.013	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	0.014	ND<0.005	ND<0.005	0.13
MW-203	6/1/1988	—	—	—	—	—	0.046	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	9/1/1988	—	—	—	—	—	0.076	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12/1/1988	—	—	—	—	—	0.064	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3/1/1989	—	—	—	—	—	0.11	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6/1/1989	—	—	—	—	—	0.11	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9/1/1989	—	—	—	—	—	0.08	ND<0.005	0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12/1/1989	—	—	—	—	—	0.1	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3/1/1990	—	—	—	—	—	0.1	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6/1/1990	—	—	—	—	—	0.098	0.002	0.007	0.002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9/1/1990	—	—	—	—	—	0.13	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12/1/1990	—	—	—	—	—	0.094	ND<0.005	0.007	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3/1/1991	—	—	—	—	—	0.1	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6/1/1991	—	—	—	—	—	0.14	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9/1/1991	—	—	—	—	—	0.13	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12/1/1991	—	—	—	—	—	0.12	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3/1/1992	—	—	—	—	—	0.085	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6/1/1992	—	—	—	—	—	0.046	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9/1/1992	—	—	—	—	—	0.064	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
12/1/1992	—	—	—	—	—	0.069	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3/1/1993	—	—	—	—	—	0.086	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5/1/1993	—	—	—	—	—	0.04	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5/25/1993	—	—	—	—	—	0.039	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9/1/1993	—	—	—	—	—	0.027	ND<0.005																		

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPHg	TPHd	TRPH	MTBE	TBA	Benzene	Toluene	Ethylbenzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichlorodifluoromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB			
	7/1/2004	0.27	—	—	ND<0.005	ND<0.1	0.0092	0.0005J	0.00075	ND<0.001	ND<0.0005	ND<0.0005	ND<0.005	—	ND<0.005	—	0.024	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005			
Operational Area 2: East Tank Farm Area																												
MW-103	8/1/1985	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	6/1/1988	—	—	—	—	—	—	—	0.97	0.074	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—			
	9/1/1988	—	—	—	—	—	—	—	0.3	ND<0.005	ND<0.005	0.008	—	—	—	—	—	—	—	—	—	—	—	—	—			
	12/1/1988	—	—	—	—	—	—	—	0.37	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—			
MW-103	3/1/1989	—	—	—	—	—	—	—	0.94	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—			
	6/1/1989	—	—	—	—	—	—	—	0.7	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—			
	9/1/1989	—	—	—	—	—	—	—	1	0.03	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3/1/1992	—	—	—	—	—	—	—	0.21	ND<0.005	0.005	0.023	—	—	—	—	—	—	—	—	—	—	—	—	—			
	6/1/1992	—	—	—	—	—	—	—	0.88	ND<0.005	ND<0.005	0.055	—	—	—	—	—	—	—	—	—	—	—	—	—			
	9/1/1992	—	—	—	—	—	—	—	0.2	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—			
	12/1/1992	—	—	—	—	—	—	—	0.35	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3/1/1993	—	—	—	—	—	—	—	ND<0.005	0.008	0.019	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—			
	5/1/1993	—	—	—	—	—	—	—	4.8	ND<0.25	ND<0.25	ND<0.25	—	—	—	—	—	—	—	—	—	—	—	—	—			
	5/25/1993	—	—	—	—	—	—	—	4.8	ND<0.25	ND<0.25	ND<0.25	—	—	—	—	—	—	—	—	—	—	—	—	—			
	9/1/1993	—	—	—	—	—	—	—	1.3	0.088	0.062	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—			
	11/1/1993	—	—	—	—	—	—	—	1.4	ND<0.25	ND<0.25	ND<0.25	—	—	—	—	—	—	—	—	—	—	—	—	—			
	12/1/1994	—	—	—	—	—	—	—	0.24	ND<0.01	ND<0.01	0.011	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3/1/1995	—	—	—	—	—	—	—	0.16	ND<0.005	ND<0.005	ND<0.015	—	—	—	—	—	—	—	—	—	—	—	—	—			
	9/1/1995	—	—	—	—	—	—	—	0.9	ND<0.05	ND<0.05	ND<0.05	—	—	—	—	—	—	—	—	—	—	—	—	—			
	12/3/1995	4.1	—	ND<0.5	—	—	—	—	0.41	0.0041	0.0028	0.077	—	—	—	—	—	ND<0.0005	—	—	0.0022	0.0021	ND<0.0005	ND<0.0005	—			
	7/31/1996	2.7	—	—	ND<0.01	—	—	—	0.34	0.005	ND<0.0005	0.012	—	—	ND<0.0003	—	ND<0.0003	—	0.0007	0.0012	—	0.011	0.017	0.0017	ND<0.0003	ND<0.0003		
	12/17/1996	2.4	—	—	ND<0.01	—	—	—	0.2	ND<0.005	ND<0.005	ND<0.01	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.01	0.027	ND<0.005	ND<0.005	ND<0.005		
	1/21/1998	1.3	—	—	ND<0.005	—	—	—	0.23	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	0.011		
	8/19/1998	1.6	—	—	ND<0.005	—	—	—	0.22	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	0.011		
	1/27/1999	1.9	—	—	ND<0.005	—	—	—	0.11	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	0.0071		
	7/19/1999	1.8	—	—	ND<0.001	—	—	—	0.061	0.0011	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0012	ND<0.001	—	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	0.0088		
	1/12/2000	1.5	—	—	0.0012	—	—	—	0.081	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0003	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0063		
	8/4/2000	0.52	—	—	ND<0.001	—	—	—	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.035		
	2/9/2001	0.65	—	—	ND<0.001	—	—	—	ND<0.0087	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0024	ND<0.001	—	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	0.0047		
	7/25/2001	1.3	—	—	—	—	—	—	0.025	—	0.041	ND<0.001	ND<0.001	0.0027	—	ND<0.001	ND<0.001	ND<0.001	—	0.0025	ND<0.001	—	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	0.0041	
	5/8/2002	0.2	—	—	ND<0.001	—	—	—	53	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	—	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	0.0061	
	9/25/2002	0.69	—	—	0.0014	40	0.04	ND<0.001	ND<0.001	0.0013	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	—	0.0016	ND<0.001	—	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	0.0067
MW-202	8/1/1985	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
	11/1/1993	—	—	—	—	—	—	—	7.7	ND<0.5	2.6	6.3	—	—	—	—	—	—	—	—	—	—	—	—	—			
	3/1/1995	—	—	—	—	—	—	—	0.4	0.007	0.029	0.042	—	—	—	—	—	—	—	—	—	—	—	—	—			
	9/1/1995	—	—	—	—	—	—	—	0.5	0.01	0.048	0.042	—	—	—	—	—	—	—	—	—	—	—	—	—			
	12/1/1995	6.5	—	—	—	—	—	—	0.33	0.021	0.051	0.074	—	—	—	—	—	—	—	—	—	—	—	—	—			
	7/31/1996	4.8	—	—	0.062	—	—	—	0.64	0.015	ND<0.0005	0.032	—	—	ND<0.0003	—	ND<0.0003	—	0.0007	ND<0.0003	—	0.0057	0.0054	0.0058	ND<0.0003	0.0004		
	12/17/1996	7.4	—	—	ND<0.02	—	—	—	0.89	ND<0.05	ND<0.05	ND<0.1	—	—	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	0.055		
	1/21/1998	1.6	—	—	ND<0.005	—	—	—	0.45	ND<0.005	0.019	0.021	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	0.057		
	8/18/1998	3.1	—	—	ND<0.005	—	—	—	0.28	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	0.049		
	1/27/1999	2.3	—	—	ND<0.005	—	—	—	0.076	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.001	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	0.067		
	7/19/1999	2.3	—	—	ND<0.002	—	—	—	0.036	0.0021	0.0037	0.0024	—	—	ND<0.002	ND<0.002	ND<0.002	—	0.0033	ND<0.002	—	ND<0.002	ND<0.002	ND<0.001	ND<0.002	0.062		
	1/11/2000	2.4	—	—	0.0012	—	—	—	0.049	ND<0.001	0.024	0.023	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0019	ND<0.001	—	ND<0.001	0.022	ND<0.0005	ND<0.001	0.046		
	8/2/2000	1.4	—	—	ND<0.001	—	—	—	0.041	ND<0.001	ND<0.001	0.018	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0046	ND<0.001	—	ND<0.001	0.011	ND<0.0005	ND<0.001	0.035		
	2/7/2000	1.1	—	—	ND<0.001	—	—	—	0.025	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0023	ND<0.001	—	ND<0.001	0.0073	ND<0.0005	ND<0.001	0.0099		
	7/24/2001	1.1	—	—	ND<0.001	—	—	—	0.038	ND<0.001	ND<0.001	0.018	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001</td									

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPH_g, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VDC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPHg	TPHd	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl-benzene	Total Xylenes	<i>o</i> -Xylene	<i>m,p</i> -Xylene	BDGM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro-difluoromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
	7/25/2001	ND<0.1	—	—	ND<0.001	—	ND<0.005	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0039	ND<0.001	—	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	
	5/7/2002	0.1	—	—	ND<0.001	31	ND<0.005	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<1	0.0043	ND<0.001	—	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	
	9/24/2002	ND<0.1	—	—	ND<0.001	20	ND<0.005	ND<0.001	ND<0.001	ND<0.002	—	—	ND<0.001	ND<0.001	ND<1	0.0054	ND<0.001	—	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	
	6/30/2004	ND<0.2	—	—	ND<0.005	0.03J	ND<0.005	ND<0.005	ND<0.005	ND<0.001	—	—	ND<0.005	ND<0.005	ND<1	0.0081	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	0.001J	ND<0.005	ND<0.005
MW-504	12/1/1993	—	—	—	—	—	11	1.3	1.8	9.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1994	—	—	—	—	—	8.6	2.1	ND<0.5	8.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1994	—	—	—	—	—	5.8	0.7	0.84	7.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1995	—	—	—	—	—	5.2	1.1	1.2	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1995	—	—	—	—	—	8	1.3	2.2	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/13/1995	99	—	36.9	—	—	2.7	0.73	0.8	2.6	—	—	—	—	—	0.014	—	—	—	0.013	—	—	—	—	—	
	8/1/1996	80	—	—	0.37	—	3.4	1.4	0.96	3.7	—	—	ND<0.001	—	ND<0.001	—	0.02	ND<0.001	—	ND<0.001	0.004	0.02	ND<0.001	ND<0.001	—	
	12/18/1996	33	—	—	ND<0.05	—	6	2.8	1	3.3	—	—	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	
	1/21/1998	30	—	—	ND<0.25	—	4.6	0.94	0.75	2.08	—	—	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	
	8/20/1998	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/28/1999	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/19/1999	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/10/2000	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/31/2000	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/6/2001	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/24/2001	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	5/6/2002	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/23/2002	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Operational Area 4: West Tank Farm Area																										
MW-101	8/1/1985	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1988	—	—	—	—	—	0.62	ND<0.005	ND<0.005	0.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1988	—	—	—	—	—	0.31	0.01	0.034	0.013	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1988	—	—	—	—	—	0.49	0.028	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1992	—	—	—	—	—	0.44	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1992	—	—	—	—	—	0.34	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1992	—	—	—	—	—	0.29	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1993	—	—	—	—	—	0.2	ND<0.005	ND<0.005	ND<0.025	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1994	—	—	—	—	—	0.062	ND<0.005	0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1995	—	—	—	—	—	0.11	ND<0.005	0.11	<0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1995	—	—	—	—	—	0.18	ND<0.004	0.18	ND<0.004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/13/1995	2.4	—	ND<5	—	—	0.09	0.0059	0.0064	0.0029	—	—	—	—	—	0.045	—	—	—	0.0093	0.0018	0.067	ND<0.0005	—	—	
	7/31/1996	2.3	—	—	ND<0.01	—	0.13	0.014	0.13	0.014	—	—	ND<0.0003	—	ND<0.0003	—	0.35	ND<0.0003	—	ND<0.0003	0.0086	0.0116	0.052	ND<0.0003	—	
	12/17/1996	0.92	—	—	ND<0.002	—	ND<0.025	ND<0.05	ND<0.025	ND<0.05	—	—	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	0.14	ND<0.025	ND<0.025	ND<0.025	ND<0.025	
	1/19/1998	1.4	—	—	ND<0.005	—	0.065	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.062	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/18/1998	3.2	—	—	—	—	0.14	ND<0.005	0.015	0.0067	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.052	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	1/26/1999	3.2	—	—	ND<0.005	—	0.0584	ND<0.005	0.00708	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.0719	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	7/19/1999	1.3	—	—	ND<0.002	—	0.022	ND<0.002	0.0024	ND<0.002	—	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	0.057	ND<0.002	ND<0.002	ND<0.002	ND<0.002	
	1/10/2000	0.69	—	—	ND<0.001	—	0.025	ND<0.001	0.0026	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<1	0.016	ND<0.001	ND<0.001	0.022	ND<0.001	ND<0.001	ND<0.001	ND<0.001	
	8/3/2000	ND<0.5	—	—	ND<0.002	—	0.024	ND<0.002	0.002	ND<0.002	—	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	0.033	ND<0.002	ND<0.002	ND<0.002	ND<0.002	
	2/9/2001	0.6	—	—	ND<0.005	—	0.026	ND<0.005	0.0005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.021	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	7/26/2001	0.69	—	—	ND<0.001	—	0.025	ND<0.001	0.0026	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<1	0.028	ND<0.001	ND<0.001	0.0082	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	5/8/2002	0.58	—	—	ND<0.001	—	0.010	ND<0.001	0.0013	ND<0.001	—	—	ND<0.001	ND<0.001	ND<1	0.016	ND<0.001	ND<0.001	ND<0.001	0.0029	ND<0.005	0.016	ND<0.001	ND<0.001		
	9/25/2002	0.57	—	—	ND<0.001	—	0.031	ND<0.001	0.0012	ND<0.001	—	—	ND<0.001	ND<0.001	ND<1	0.014	ND<0.001	ND<0.001	ND<0.001	0.003	ND<0.005	0.018	ND<0.001	ND<0.001		
	12/21/1995	ND<0.5	—	—	ND<0.01	—	0.0011	ND<0.005	0.0037	—	—	—	—	—	—	0.0094	—	—	—	—	0.045	ND<0.003	0.013	—	—	
	7/31/1996	0.65	—	—	ND<0.01	—	0.091	0.0018	0.002	ND<0.018	—	—	ND<0.003	—	ND<0.003	—	0.0084	ND<0.003	—	ND<0.003	0.012	0.0014	0.02	ND<0.003	—	
	12/16/1996	0.24	—	—	ND<0.002	—	0.014	ND<0.005																		

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

**FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPHg	TPHd	TRPH	MTBE	TBA	Benzene	Toluene	Ethylbenzene	Total Xylenes	o-Xylene	m,p-Xylene	BCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichlorodifluoromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
	12/1/1989	—	—	—	—	—	0.51	0.076	0.024	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1990	—	—	—	—	—	0.35	0.038	0.029	0.085	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1990	—	—	—	—	—	0.82	0.049	0.084	0.083	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1990	—	—	—	—	—	0.34	0.015	0.02	0.073	0.055	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1990	—	—	—	—	—	0.24	0.012	0.007	0.055	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1991	—	—	—	—	—	0.5	ND<0.005	ND<0.005	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1991	—	—	—	—	—	0.53	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1991	—	—	—	—	—	0.37	ND<0.005	ND<0.005	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1991	—	—	—	—	—	0.34	0.01	0.009	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1992	—	—	—	—	—	0.25	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1992	—	—	—	—	—	0.35	ND<0.005	ND<0.005	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1992	—	—	—	—	—	1.15	ND<0.005	ND<0.005	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1993	—	—	—	—	—	0.56	0.077	ND<0.05	0.41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1994	—	—	—	—	—	1.3	0.066	0.5	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1995	—	—	—	—	—	0.29	ND<0.005	ND<0.005	ND<0.015	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1995	—	—	—	—	—	1.1	0.028	0.13	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/3/1995	9	—	ND<5	—	—	0.44	0.042	0.12	0.094	—	—	—	—	—	—	0.044	—	—	0.0094	0.0044	0.087	0.00081	—	—	
	7/31/1996	ND<0.1	—	—	ND<0.01	—	0.48	0.02	0.032	0.025	—	—	ND<0.0003	—	ND<0.0003	—	0.034	ND<0.0003	—	ND<0.0003	0.0094	0.0027	0.098	ND<0.0003	—	
	12/17/1996	3.7	—	—	ND<0.01	—	0.11	0.012	0.096	0.121	—	—	ND<0.01	ND<0.01	ND<0.01	—	0.089	ND<0.01	—	ND<0.01	ND<0.01	ND<0.01	0.17	ND<0.01	0.021	
	1/21/1998	2.6	—	—	ND<0.005	—	0.22	0.014	0.087	0.017	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.064	ND<0.005	—	ND<0.01	0.01	ND<0.005	0.1	ND<0.005	0.019	
	1/21/1998 DUP	2.1	—	—	ND<0.005	—	0.25	0.012	0.069	0.016	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.071	ND<0.005	—	ND<0.01	0.0099	ND<0.005	0.074	ND<0.005	0.018	
	8/18/1998	2.6	—	—	—	—	0.44	0.086	0.02	0.013	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.063	ND<0.005	—	ND<0.01	0.0063	ND<0.005	0.046	ND<0.005	0.051	
	7/19/1999	2.8	—	—	ND<0.005	—	0.16	0.029	0.069	0.0546	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.063	ND<0.005	—	ND<0.005	0.0093	ND<0.0025	0.061	ND<0.005	0.021	
MW-200	1/12/2000	5.1	—	—	ND<0.006	—	0.52	0.014	0.053	0.016	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.043	ND<0.005	—	ND<0.005	ND<0.005	ND<0.0025	0.019	ND<0.005	0.016	
MW-201	8/4/2000	2.9	—	—	ND<0.007	—	0.57	0.015	0.061	0.021	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.076	ND<0.005	—	ND<0.005	ND<0.005	ND<0.0025	0.019	ND<0.005	0.012	
	2/9/2001	2.2	—	—	ND<0.008	—	0.31	0.012	0.13	0.014	—	—	ND<0.01	ND<0.01	ND<0.01	—	0.1	ND<0.01	—	ND<0.01	ND<0.01	ND<0.005	0.022	ND<0.01	0.026	
	7/26/2001	3.2	—	—	ND<0.01	—	0.18	0.0096	0.056	0.0247	—	—	ND<0.01	ND<0.01	ND<0.01	—	0.057	ND<0.01	—	ND<0.01	0.023	ND<0.005	0.013	ND<0.01	0.014	
	5/9/2002	1.8	—	—	0.0051	ND<20	0.12	0.0066	0.045	0.02	—	—	ND<0.002	ND<0.002	ND<0.002	—	ND<2	0.033	ND<0.002	—	ND<0.002	ND<0.002	ND<0.001	0.0064	ND<0.002	0.0088
	9/26/2002	0.89	—	—	ND<0.001	ND<10	0.011	0.011	0.068	0.0343	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<1	0.027	ND<0.001	—	ND<0.001	ND<0.001	ND<0.005	0.0072	ND<0.001	0.001
	6/30/2004	1.7	—	—	ND<0.005	ND<0.1	0.12	0.012	0.21E	0.071	0.013	0.058	ND<0.005	—	ND<0.005	ND<0.005	0.021	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.027
MW-205	6/1/1988	—	—	—	—	—	0.013	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1988	—	—	—	—	—	0.027	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1988	—	—	—	—	—	0.12	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1989	—	—	—	—	—	0.04	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1989	—	—	—	—	—	0.12	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1989	—	—	—	—	—	0.681	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1989	—	—	—	—	—	0.17	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1990	—	—	—	—	—	0.14	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1990	—	—	—	—	—	0.056	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1990	—	—	—	—	—	0.045	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1990	—	—	—	—	—	0.047	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1991	—	—	—	—	—	0.04	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1991	—	—	—	—	—	0.012	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1991	—	—	—	—	—	0.043	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1991	—	—	—	—	—	0.085	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1992	—	—	—	—	—	0.035	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1992	—	—	—	—	—	0.006	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1992	—	—	—	—	—	0.005	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1992	—	—	—	—	—	0.01	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1993	—	—	—	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5/1/1993	—	—	—	—	—	0.022	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5/25/1993	—	—	—	—	—	0.022	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	11/1/1993	—	—	—	—	—	0.032	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1994	—	—	—	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1995	—	—	—	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.015	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1995	—	—	—	—	—	0.053	ND<0.002	ND<0.002	ND<0.002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/13/1995	2.1	—	ND<5	—	—	0.11	0.0013	0.018	0.037	—	—	—	—	—	—	0.051	—	—	—	0.0073	0.002	0.022	—	—	
	7/31/1996	ND<0.1	—	ND<0																						

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

**FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPHg	TPHd	TRPH	MTBE	TBA	Benzene	Toluene	Ethyl-benzene	Total Xylenes	<i>o</i> -Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro-difluoro-methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
W-8	9/25/2002	0.3	--	--	ND<0.001	4	0.024	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	ND<1	0.01	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001	
	6/30/2004	ND<0.2	--	--	ND<0.005	ND<0.1	0.003J	ND<0.005	ND<0.005	ND<0.001	ND<0.0005	ND<0.005	--	ND<0.005	--	ND<0.005	0.0065	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/4/2000	ND<0.5	--	--	ND<0.001	--	0.0028	<0.0046	ND<0.001	ND<0.0029	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001	
	2/6/2001	NS	NS	NS	NS	--	NS	NS	NS	NS	--	--	NS	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/26/2001	0.18	--	--	ND<0.001	--	0.00067	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001	
	5/7/2002	0.18	--	--	ND<0.001	ND<0.10	0.00051	ND<0.001	ND<0.001	ND<0.001	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<1	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001
	9/24/2002	ND<0.1	--	--	ND<0.001	ND<0.10	0.00064	ND<0.001	ND<0.001	ND<0.002	--	--	ND<0.001	ND<0.001	ND<0.001	--	ND<1	ND<0.001	ND<0.001	--	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001
	7/1/2004	0.39	--	--	ND<0.005	ND<0.1	0.0019J	0.0018	0.00072	0.00142	ND<0.0005	0.00092	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
Operational Area 5: Lakeland Property																										
MW-206	6/1/1988	--	--	--	--	--	5.8	2.4	2.1	4.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1988	--	--	--	--	--	4.2	1	2	6.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1988	--	--	--	--	--	4.3	0.92	2.1	5.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1989	--	--	--	--	--	2.7	3.2	2.4	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1989	--	--	--	--	--	3.1	1.2	2.3	8.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1989	--	--	--	--	--	4.5	0.62	2.4	6.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1989	--	--	--	--	--	3.2	1	2	6.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1990	--	--	--	--	--	3.7	1.7	2.6	9.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1990	--	--	--	--	--	3.7	0.96	2	6.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1990	--	--	--	--	--	5.1	2.1	2.3	6.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-206	12/1/1990	--	--	--	--	--	7.1	2.1	2.4	8.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1991	--	--	--	--	--	4.9	2.6	2.2	9.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1991	--	--	--	--	--	5.22	1.08	2.4	6.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1991	--	--	--	--	--	4.5	2.1	2	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1991	--	--	--	--	--	3.4	0.72	2.5	4.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1992	--	--	--	--	--	2	0.47	2.5	4.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/1/1992	--	--	--	--	--	3.2	0.42	2.1	2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1992	--	--	--	--	--	9.9	1.4	3.2	7.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1992	--	--	--	--	--	13	2	6	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1994	--	--	--	--	--	8.4	4.9	1.8	9.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-206	3/1/1995	--	--	--	--	--	6.2	0.8	1.6	3.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1995	--	--	--	--	--	0.11	0.016	0.032	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/13/1995	12	--	ND<5	--	--	0.51	0.57	0.42	0.49	--	ND<0.0003	--	ND<0.0003	--	0.02	ND<0.0003	--	ND<0.0003	0.0088	0.0058	0.022	ND<0.0003	--	--	
	7/31/1996	33	--	--	--	--	ND<0.02	2.2	ND<0.1	1.2	0.34	--	ND<0.1	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	--	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	
	12/18/1996	8.2	--	--	--	--	ND<0.005	--	1.5	0.29	1.6	0.78	--	ND<0.005	ND<0.005	ND<0.005	--	0.13	ND<0.005	--	ND<0.01	ND<0.005	0.082	ND<0.005	0.085	--
	8/20/1998	NS	NS	NS	NS	--	NS	NS	NS	NS	--	NS	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	3/1/1995	--	--	--	--	--	4.2	0.23	1	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1995	--	--	--	--	--	2.4	0.27	ND<0.2	ND<0.2	--	--	--	--	--	--	0.0085	--	--	0.0016	0.0032	0.001	0.0013	--	--	
	12/13/1995	69	--	19.9	--	--	1.6	0.1	0.88	2.2	--	--	--	--	--	--	0.0072	ND<0.0003	--	ND<0.0003	0.0081	0.0013	ND<0.0003	0.001	--	
	7/31/1996	18	--	--	--	--	1.7	0.073	0.22	1.1	--	ND<0.0003	--	ND<0.0003	--	ND<0.0003	0.0072	ND<0.0003	--	ND<0.0003	0.0081	0.0013	ND<0.0003	0.001	--	
MW-501	12/18/1996	6.8	--	--	--	--	1.2	ND<0.05	0.51	0.65	--	ND<0.05	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	0.092		
	1/21/1998	0.95	--	--	--	--	ND<0.005	--	0.26	ND<0.005	0.011	0.023	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	--	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/20/1998	NS	NS	NS	NS	--	NS	NS	NS	NS	--	NS	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/26/1999	NS	NS	NS	NS	--	NS	NS	NS	NS	--	NS	NS	NS	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/19/1999	7.5	--	--	ND<0.025	--	1.3	ND<0.025	ND<0.025	0.025	--	ND<0.025	ND<0.025	ND<0.025	--	ND<0.025	ND<0.025	--	ND<0.025	ND<0.025	<0.013	<0.013	<0.013	0.041		
	1/13/2000	9.2	--	--	ND<0.01	--	1.6	0.018	ND<0.01	0.023	--	ND<0.01	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.005	ND<0.01	ND<0.01	0.034		
	8/2/2000	7.1	--	--	--	--	0.98	0.011	0.012	0.014	--	ND<0.01	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.005	ND<0.01	0.085	--		
	2/7/2001	6.6	--	--	--	--	0.68	ND<0.01	0.01	0.01	--	ND<0.01	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.005	ND<0.01	0.09	--		
	7/25/2001	5.7	--	--	--	--	0.085	--	0.14	ND<0.01	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	--	ND<0.01	0.013	ND<0.005	0.011	0.098	
	5/8/2002	7	--	--	--	--	0.13	ND<20	0.69	0.0043	0.0068	0.0059	--	ND<0.002	ND<0.002	ND<0.002	--	ND<2	ND<0.002	ND<0.002	--	ND<0.002	0.0042	ND<0.001	ND<0.002	0.007
MW-502	9/26/2002	6.5	--	--	ND<0.100	--	0.52	ND<0.01	ND<0.01	ND<0.02	--	ND<0.01	ND<0.01	ND<0.01	--	ND<10	ND<0.01	ND<0.01	--	ND<0.01	ND<0.01	ND<0.005	ND<0.01	0.18		
	6/1/1988	--	--	--	--	--	1.3	0.18	2.8	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1988	--	--	--	--	--	6.5	0.86	1.5	5.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1988	--	--	--	--	--	5.3	1.2	1.9	7.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1989	--	--	--	--	--	9.8	0.86	1.9	3.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/1/1994	--	--	--	--	--	8.4	1.6	1.6	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/1/1994	--	--	--	--	--	18	0.48	2.1	7.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/1995	--	--	--	--	--	15	0.69	3.3	6.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/13/1995	220	--	41.1	--	--	6.9	0.95	3.3	8.5	--	--	--	--	--	--	0.0069	--	--	0.0089	0.0061	--	0.0011	--	--	
	7/13/1996	110	--	--	1	--	13	0.4	1.8	6.8	--	ND<0.0003	--	ND<0.0003	--	0.0068	ND<0.0003	--	ND<0.0003	ND<0.0003	0.012	0.0076	ND<			

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPHg	TPHd	TRPH	MTBE	TBA	Benzene	Toluene	Ethy-benzene	Total Xylenes*	o-Xylene	m,p-Xylene	t-BDCM	BCM	Chloroform	Chloroethane	c-1,2 DCE	1,2-DCB	CFC11	Dichloro-difluoro-methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
	2/7/2001	18	—	—	6.5	—	5	0.082	0.23	ND<0.05	—	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	0.062		
	7/25/2001	24	—	—	18	—	6.5	0.17	0.4	0.513	—	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	0.062		
	5/9/2002	25	—	—	14	ND<2000	4.3	ND<0.2	0.39	0.23	—	—	ND<0.2	ND<0.2	ND<0.2	ND<200	ND<0.2	ND<0.2	—	ND<0.2	ND<0.2	ND<0.1	ND<0.2	ND<0.2		
	9/26/2002	11	—	—	9.4	ND<1000	4	ND<0.1	0.54	0.23	—	—	ND<0.1	ND<0.1	ND<0.1	ND<100	ND<0.1	ND<0.1	—	ND<0.1	ND<0.1	ND<0.05	ND<0.1	ND<0.1		
MW-503	6/1/1988	—	—	—	—	—	0.6	0.14	0.34	0.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Abandoned	9/1/1988	—	—	—	—	—	0.8	0.28	0.3	0.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1988	—	—	—	—	—	1.5	0.57	0.38	0.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1989	—	—	—	—	—	0.4	0.19	0.36	0.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/1/1989	—	—	—	—	—	0.6	0.34	0.63	1.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1989	—	—	—	—	—	0.99	0.55	0.2	0.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1989	—	—	—	—	—	0.27	0.18	0.18	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1990	—	—	—	—	—	0.31	0.14	0.14	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/1/1990	—	—	—	—	—	0.034	0.024	0.11	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1990	—	—	—	—	—	0.17	0.11	0.14	0.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1990	—	—	—	—	—	2.1	1.3	0.1	2.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1991	—	—	—	—	—	0.9	0.65	0.25	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/1/1991	—	—	—	—	—	1.04	0.7	0.33	1.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1992	—	—	—	—	—	3.3	0.75	0.34	1.58	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1993	—	—	—	—	—	2.9	0.4	ND<0.25	1.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1994	—	—	—	—	—	0.24	0.022	0.066	0.079	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1995	—	—	—	—	—	0.39	0.055	0.1	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1995	—	—	—	—	—	0.53	0.093	0.13	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1995	8.2	—	ND<5	—	—	0.34	0.079	0.19	0.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	7/31/1996	5.1	—	—	ND<0.01	—	0.15	0.049	0.025	0.084	—	—	ND<0.0003	—	ND<0.0003	—	0.036	ND<0.0003	—	ND<0.0003	0.015	0.0031	0.15	ND<0.0003	—	
	12/8/1996	4.6	—	—	ND<0.02	—	0.21	0.019	0.14	0.056	—	—	ND<0.01	ND<0.01	ND<0.01	—	0.04	ND<0.01	ND<0.01	ND<0.01	ND<0.01	0.32	ND<0.01	0.044	—	
	1/21/1998	3.1	—	—	ND<0.005	—	0.21	0.031	0.28	0.063	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.067	ND<0.005	—	ND<0.01	0.0096	ND<0.005	0.21	ND<0.005	0.053	
	8/19/1998	0.98	—	—	—	—	0.072	0.0079	0.053	0.0076	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.041	ND<0.005	ND<0.01	ND<0.005	ND<0.005	0.037	ND<0.005	0.011	—	
MW-503B	2/9/1999	10	—	—	—	—	0.97	ND<0.05	0.42	ND<0.05	—	—	ND<0.05	ND<0.05	ND<0.05	—	0.11	ND<0.05	—	ND<0.1	ND<0.05	ND<0.05	0.061	ND<0.05	0.05	
	7/19/1999	7.8	—	—	ND<0.02	—	0.63	ND<0.02	0.54	ND<0.02	—	—	ND<0.02	ND<0.02	ND<0.02	—	0.18	ND<0.02	—	ND<0.02	ND<0.02	ND<0.01	0.082	ND<0.02	0.073	
	1/17/2000	14	—	—	ND<0.02	—	1	0.032	0.87	0.14	—	—	ND<0.02	ND<0.02	ND<0.02	—	0.21	ND<0.02	—	ND<0.02	ND<0.02	ND<0.01	0.09	ND<0.02	0.083	
	8/4/2000	5.6	—	—	ND<0.01	—	0.61	0.019	0.5	0.035	—	—	ND<0.01	ND<0.01	ND<0.01	—	0.14	ND<0.01	—	ND<0.01	ND<0.01	ND<0.005	0.036	ND<0.01	0.068	
	2/6/2001	5.8	—	—	ND<0.02	—	0.25	ND<0.02	0.32	0.041	—	—	ND<0.02	ND<0.02	ND<0.02	—	0.084	ND<0.02	—	ND<0.02	ND<0.03	ND<0.01	0.025	ND<0.02	0.089	
	7/25/2001	5.7	—	—	ND<0.05	—	0.28	ND<0.05	0.23	ND<0.05	—	—	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.025	ND<0.05	0.062		
	5/9/2002	4.5	—	—	ND<0.002	—	0.081	0.0035	0.077	0.0345	—	—	ND<0.002	ND<0.002	ND<0.002	—	0.027	ND<2	0.023	ND<0.002	ND<0.002	ND<0.001	0.005	ND<0.002	0.086	
	9/26/2002	3.3	—	—	ND<0.001	ND<10	0.036	0.0096	0.14	0.056	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.017	ND<1	0.018	ND<0.001	ND<0.001	ND<0.0005	0.0011	ND<0.001	0.095	
	7/1/2004	5.9	—	—	ND<0.005	ND<0.1	0.16	0.037	0.089	0.0425	ND<0.0005	0.042	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.016	—	—
Operational Area 6: Former AST Area at Walker Property																										
	W-3	11/1/1989	—	ND<1	—	—	—	0.019	0.0026	0.0076	0.013	—	—	ND<0.0005	ND<0.0005	ND<0.0005	—	—	—	—	—	0.0025(A)	ND<0.0005	ND<0.0005	ND<0.0005	—
	Abandoned	1/1/1990	—	—	—	—	—	ND<0.0005	ND<0.0005	ND<0.0005	0.0033	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	—	—	—	ND<0.002	0.001	ND<0.0005	ND<0.0005	ND<0.0005	
	3/1/1990	—	—	—	—	—	0.0053	0.0045	0.0045	ND<0.002	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	—	—	—	ND<0.002	0.0005	ND<0.0005	ND<0.0005	ND<0.0005		
	4/1/1990	—	—	—	—	—	0.0034	0.0045	0.0045	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	—	—	—	ND<0.002	ND<0.002	ND<0.0005	ND<0.0005	ND<0.0005		
	12/18/1996	1.3	—	—	ND<0.01	—	0.59	ND<0.025	ND<0.025	ND<0.05	—	—	ND<0.025	ND<0.025	ND<0.025	—	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025		
	1/13/1998	2.2	—	—	ND<0.005	—	0.28	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005		
	8/20/1998	4300	—	—	ND<200	—	150	ND<6	35	ND<12	—	—	ND<0.025	ND<0.025	ND<0.025	—	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025		
	8/20/1998	1.1	—	—	0.44	—	0.22	ND<0.025	0.033	ND<0.025	—	—	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05		
	1/28/1999	0.69	—	—	0.34	—	0.16	ND<0.03	0.045	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05		
	7/19/1999	5.4	—	—	0.38	—	0.12	ND<0.02	0.042	ND<0.02	ND<0.02	—	ND<0.02	ND<0.02	ND<0.02	—	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02		
	1/3/2000	14	—	—	0.21	—	0.14	ND<0.01	ND<0.01	ND<0.01	—	—	ND<0.01	ND<0.01	ND<0.01	—	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01		
	8/4/2000	3.4	—	—	0.22	—	0.17	ND<0.02	0.084	ND<0.02	ND<0.02	—	ND<0.02	ND<0.02	ND<0.02	—	0.024	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.02		
	2/8/2001	2.7	—	—	0.012	—	0.034	ND<0.001	0.029	0.0031	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.024	ND<0.001	ND<0.001	ND<0.001	ND<0.001</td					

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPHg	TPHd	TRPH	MTBE	TBA	Benzene	Toluene	Ethylenbenzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2-DCE	1,2-DCB	CFC11'	Dichlorodifluoromethane	1,1-DCA'	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB		
	9/25/2002	0.21	—	—	0.0019	30	0.012	ND<0.001	ND<0.001	ND<0.002	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.005	0.0065	ND<0.001	—	ND<0.001	ND<0.001	ND<0.005	ND<0.001	ND<0.001	0.0051		
	7/1/2004	0.46	—	—	0.003J	ND<0.1	0.014	0.0028	0.0015	ND<0.001	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.0093	ND<0.005	ND<0.005	—	0.001J	ND<0.005	ND<0.005	ND<0.005	ND<0.005
	10/6/2005	0.31	—	—	0.025	0.034	0.043	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	—	—	—	—	—	—	—	ND<0.001	ND<0.005	ND<0.001	—	0.0044	
	2/15/2006	0.266	—	—	0.022	0.037	0.032	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.0043J
	8/3/2006	1.1	—	—	0.077	0.1	0.086	ND<0.002	ND<0.002	ND<0.004	ND<0.002	ND<0.002	ND<0.002	—	—	ND<0.002	ND<0.005	ND<0.002	ND<0.002	—	—	—	ND<0.002	ND<0.002	ND<0.005	—	0.018
W-2	11/1/1989	—	ND<1	—	—	0.078	0.0065	0.0065	0.005	—	—	ND<0.0005	ND<0.0005	ND<0.0005(A)	—	—	—	—	—	—	—	0.0043(A)	ND<0.0005(A)	ND<0.0005(A)	ND<0.0005(A)	—	
Abandoned	3/1/1990	—	—	—	—	0.062	ND<0.005	ND<0.005	ND<0.005	ND<0.002	—	—	ND<0.001	ND<0.001	ND<0.005	—	—	ND<0.002	—	—	ND<0.002	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	
	4/1/1990	—	—	—	—	0.083	0.026	0.004	0.0015	—	—	ND<0.005	ND<0.005	ND<0.0025	—	0.013	ND<0.001	—	ND<0.01	0.003	ND<0.0025	ND<0.0025	—	—			
	12/18/1996	0.56	—	—	ND<0.002	—	0.056	ND<0.002	ND<0.002	ND<0.004	—	—	ND<0.002	ND<0.002	ND<0.002	—	0.013	ND<0.002	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	0.018		
	1/14/1998	0.7	—	—	ND<0.005	—	0.085	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.017	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.015		
	8/20/1998	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
W-4	3/1/1990	—	—	—	—	0.12	ND<0.0005	0.019	ND<0.0005	—	—	ND<0.0005	ND<0.0005	ND<0.0005	—	0.0032	ND<0.0005	—	ND<0.0005	0.0083	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005	—		
	4/1/1990	—	—	—	—	0.028	0.0014	0.0048	0.0022	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.00681	ND<0.001	—	ND<0.0005	0.0022	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—		
	12/18/1996	0.42	—	—	ND<0.01	—	0.08	ND<0.005	ND<0.005	ND<0.01	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.019		
	1/14/1998	0.92	—	—	ND<0.005	—	0.12	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.005	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.028	
	8/20/1998	0.5	—	—	0.018	—	0.057	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.026		
	1/29/1999	0.46	—	—	0.02	—	0.055	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.018		
	7/19/1999	0.71	—	—	ND<0.002	—	0.072	ND<0.002	ND<0.002	ND<0.002	—	—	ND<0.002	ND<0.002	ND<0.002	—	ND<0.002	ND<0.002	—	ND<0.002	ND<0.001	ND<0.002	ND<0.002	ND<0.002	0.014		
	1/13/2000	0.66	—	—	ND<0.001	—	0.049	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0013	ND<0.001	—	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001	0.028		
	8/3/2000	ND<0.5	—	—	—	0.047	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0016	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0088		
	2/8/2001	ND<0.5	—	—	ND<0.001	—	0.042	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0016	ND<0.001	ND<0.001	—	ND<0.001	0.00667	ND<0.001	ND<0.001	ND<0.001	0.0075	
	7/26/2001	0.32	—	—	ND<0.001	—	0.042	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.005	ND<0.001	ND<0.001	ND<0.001	0.0083	
	5/8/2002	0.25	—	—	ND<0.001	60	0.033	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<1	ND<0.001	ND<0.001	—	ND<0.001	0.0013	ND<0.0005	ND<0.001	ND<0.001	0.0045	
	8/25/2002	0.29	—	—	ND<0.001	45	0.062	ND<0.001	ND<0.001	ND<0.002	—	—	ND<0.001	ND<0.001	ND<0.001	—	2.6	ND<0.001	ND<0.001	—	ND<0.001	0.002	ND<0.0005	ND<0.001	ND<0.001	0.008	
	7/1/2004	0.35	—	—	ND<0.005	ND<0.1	0.03	0.0026	0.0019	0.00116	ND<0.0005	0.00066	ND<0.005	—	—	ND<0.005	ND<0.005	0.003J	ND<0.005	ND<0.005	—	0.002J	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.004
	10/6/2005	0.35	—	—	ND<0.001	0.047	0.031	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.0064	ND<0.001	—	ND<0.001	0.0017	ND<0.0005	ND<0.001	ND<0.001	0.0059		
	2/15/2006	0.501	—	—	ND<0.001	0.038	0.043	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.028J	ND<0.005	—	ND<0.002	0.025J	ND<0.005	ND<0.005	ND<0.005	—	0.012	
	8/3/2006	2.8	—	—	ND<0.005	ND<0.05	0.0035	ND<0.002	ND<0.002	ND<0.004	—	—	ND<0.002	ND<0.002	ND<0.005	—	0.0045	—	—	ND<0.002	ND<0.002	ND<0.005	ND<0.005	ND<0.005	0.025		
EW-1	11/1/1989	9.8	—	—	—	0.73	0.016	1.4(A)	1(A)	—	—	ND<0.005	ND<0.005	ND<0.005	—	—	—	—	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	
	3/1/1990	—	—	—	—	1.8	0.3	1.8	0.62	—	—	ND<0.05	ND<0.05	ND<0.25	—	—	ND<0.1	—	ND<0.1	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	—		
	4/1/1990	—	—	—	—	1.3	0.29	1.6	2	—	—	ND<0.02	ND<0.02	ND<0.02	—	0.11	ND<0.002	—	ND<0.02	ND<0.01	ND<0.01	ND<0.01	ND<0.01	—			
	8/21/1998	5	—	—	ND<0.05	—	0.23	ND<0.05	0.63	0.17	—	—	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	—	ND<1	ND<0.05	ND<0.05	ND<0.05	ND<0.05	0.2		
	1/28/1999	7.9	—	—	ND<0.05	—	0.11	ND<0.05	0.54	0.17	—	—	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	—	ND<1	ND<0.05	ND<0.05	ND<0.05	ND<0.05	0.17		
	7/19/1999	8	—	—	ND<0.25	—	0.11	ND<0.25	—	1	0.34	—	—	ND<0.25	ND<0.25	ND<0.25	—	ND<0.25	ND<0.25	—	ND<0.25	ND<0.25	<0.013	ND<0.25	ND<0.25	0.2	
	1/13/2000	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	—	NS	NS	NS	—	NS	NS	NS	NS	NS	NS	
	7/31/2000	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	—	NS	NS	NS	—	NS	NS	NS	NS	NS	NS	
	2/6/2001	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	—	NS	NS	NS	—	NS	NS	NS	NS	NS	NS	
	7/26/2001	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	—	NS	NS	NS	—	NS	NS	NS	NS	NS	NS	
	5/6/2002	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	—	NS	NS	NS	—	NS	NS	NS	NS	NS	NS	
	9/23/2002	NS	NS	NS	NS	—	NS	NS	NS	NS	—	—	NS	NS	NS	—	NS	NS	NS	—	NS	NS	NS	NS	NS	NS	
MW-600	8/1/1990	380	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	2/20/1991	0.0502	—	—	—	—	18	9.2	1.3	9.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/13/1995	3500	—	—	912	—	—	23	40	18	101	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	8/1/1996	210	—	—	ND<0.01	—	14	15	3.5	20	—	—	ND<0.001	—	ND<0.001	—	0.0038	ND<0.001	—	ND<0.001	0.0036	0.0055	ND<0.001	ND<0.001	—		
	12/19/1996	87	—	—	ND<0.01	—	14	15	1.8	9.1	—	—	ND<0.5	ND<0.5</													

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPH_g, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPH _g	TPH _d	TPR _H	MTBE	TBA	Benzene	Toluene	Ethylbenzene	Total Xylenes	<i>o</i> -Xylene	<i>m,p</i> -Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2-DCE	1,2-DCB	CFC11	Dichlorodifluoromethane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB
	2/7/2001	35	—	—	1.2	—	16	0.063	0.097	ND<0.05	—	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	0.057	
	7/24/2001	31	—	—	2.8	—	15	ND<0.1	0.11	ND<0.1	—	—	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	—	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	
	5/9/2002	24	—	—	2.5	ND<1000	11	ND<0.1	ND<0.1	ND<0.1	—	—	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<100	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	
	9/26/2002	11	—	—	4	ND<1000	8	ND<0.1	ND<0.1	ND<0.2	—	—	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<100	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	
	5/9/2002 DUP	28	—	—	3.5	NS	12	ND<0.1	ND<0.1	ND<0.1	—	—	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<100	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	
	9/26/2002 DUP	10	—	—	10	NS	4.4	ND<0.1	0.59	0.27	—	—	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<100	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	
MW-603	12/1/1995	ND<0.5	—	ND<10	—	—	0.00098	0.0014	0.00062	0.0033	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	7/30/1996	ND<0.1	—	—	0.002	—	0.0006	ND<0.0005	0.0014	ND<0.0005	—	—	0.0026	—	ND<0.0003	—	0.0064	ND<0.0003	0.0039	0.0095	0.03	ND<0.0003	—	—	—
	12/16/1996	ND<0.1	—	—	ND<0.002	—	ND<0.005	ND<0.005	ND<0.005	ND<0.01	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	1/22/1998	ND<0.1	—	—	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.009	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/19/1998	ND<0.1	—	—	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	1/27/1999	ND<0.1	—	—	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	0.0053	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	7/19/1999	ND<0.5	—	—	ND<0.001	—	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0074	0.0021	—	ND<0.001	0.003	0.031	ND<0.001	ND<0.001	
	1/11/2000	ND<0.5	—	—	ND<0.005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0064	ND<0.001	0.0036	0.016	0.039	ND<0.001	ND<0.001	ND<0.001	
	7/31/2000	ND<0.5	—	—	ND<0.001	—	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0093	ND<0.001	0.0067	0.0072	0.088	ND<0.001	ND<0.001	ND<0.001	
	2/7/2001	ND<0.5	—	—	ND<0.001	—	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.011	ND<0.001	ND<0.001	0.0085	0.0027	0.12	ND<0.001	ND<0.001	
	7/24/2001	0.19	—	—	ND<0.001	—	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.015	ND<0.001	ND<0.001	0.01	0.029	0.15	ND<0.001	ND<0.001	
	5/7/2002	0.21	—	—	ND<0.002	ND<20	ND<0.1	ND<0.002	ND<0.002	ND<0.004	—	—	ND<0.002	ND<0.002	ND<0.002	—	ND<2	0.0096	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	
	9/24/2002	ND<0.1	—	—	ND<0.002	ND<20	ND<0.1	ND<0.002	ND<0.002	ND<0.002	—	—	ND<0.002	ND<0.002	ND<0.002	—	ND<2	0.014	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	
	7/1/2004	ND<0.2	—	—	ND<0.005	ND<0.1	ND<0.005	0.0033J	ND<0.0005	ND<0.0005	ND<0.001	ND<0.0005	ND<0.005	ND<0.005	ND<0.005	—	0.012	ND<0.005	ND<0.005	0.0057	0.003J	0.08	ND<0.005	ND<0.005	
MW-604	12/20/1995	1.9	—	ND<10	—	—	0.16	0.0033	0.0078	0.021	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7/30/1996	0.9	—	—	0.0124	—	0.073	0.0078	ND<0.0005	0.009	—	—	ND<0.0003	—	ND<0.0003	—	0.0098	ND<0.0003	ND<0.0003	0.0017	0.0011	ND<0.0003	ND<0.0003	ND<0.0003	
	12/17/1996	0.71	—	—	ND<0.002	—	0.047	ND<0.002	ND<0.002	ND<0.004	—	—	ND<0.002	ND<0.002	ND<0.002	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002		
	1/22/1998	0.41	—	—	ND<0.005	—	0.007	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005		
	8/19/1998	0.37	—	—	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005		
	1/27/1999	0.23	—	—	ND<0.005	—	0.025	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005		
	7/19/1999	0.5	—	—	ND<0.001	—	0.014	ND<0.001	ND<0.001	0.0013	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0042	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001		
	1/11/2000	0.75	—	ND<0.001	—	0.021	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0039	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001			
	8/3/2000	0.56	—	—	0.03	—	0.1	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.0087	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001		
	2/7/2001	1.1	—	—	0.031	—	0.11	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005			
	7/24/2001	1.1	—	—	0.034	—	0.067	ND<0.001	ND<0.001	0.005	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001			
	5/8/2002	1.1	—	—	0.048	51	0.057	ND<0.001	ND<0.001	0.0033	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001			
	9/25/2002	0.96	—	—	0.072	46	0.034	ND<0.001	ND<0.001	0.0047	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001			
	5/8/2002 DUP	1.4	—	—	0.046	NS	0.055	ND<0.001	ND<0.001	0.0032	—	—	ND<0.001	ND<0.001	ND<0.001	—	1.6	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001		
	9/25/2002 DUP	0.97	—	—	0.084	NS	0.036	ND<0.001	ND<0.001	0.0058	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<1	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001		
MW-605	12/20/1995	ND<1	—	—	—	—	0.01	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005	—	—	—	—	—	—	—	—	—	—	—	—		
	7/31/1996	ND<0.1	—	—	ND<0.02	—	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0005	—	—	ND<0.0003	—	ND<0.0003	—	ND<0.0003	ND<0.0003	0.0012	ND<0.0003	0.0043	ND<0.0003	—	—	
	12/16/1996	ND<0.1	—	—	ND<0.002	—	ND<0.001	ND<0.001	ND<0.001	ND<0.002	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001		
	1/22/1998	ND<0.1	—	—	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005			
	8/19/1998	ND<0.1	—	—	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005			
	1/28/1999	ND<0.1	—	—	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005			
	7/19/1999	ND<0.5	—	—	ND<0.001	—	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001			
	1/11/2000	ND<0.6	—	—	ND<0.005	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001			
	8/2/2000	ND<0.7	—	—	ND<0.001	—	ND<0.0005	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001</											

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPHg	TPHd	TRPH	MTBE	TBA	Benzene	Toluene	Ethy-l-benzene	Total Xylenes	o-Xylene	m,p-Xylene	BDCM	BCM	Chloroform	Chloroethane	c-1,2-DCE	1,2-DCB	CFC11	Dichloro-difluoro-methane	1,1-DCA	1,2-DCA	1,1-DCE	1,2-DCP	IsoPB	
	1/27/1999	1.76	-	-	0.0062	-	0.22	ND<0.005	ND<0.005	ND<0.005	-	-	ND<0.005	ND<0.005	ND<0.005	-	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005	ND<0.005	ND<0.005	0.015		
	7/19/1999	1.2	-	-	ND<0.005	-	0.26	ND<0.005	ND<0.005	ND<0.005	-	-	ND<0.005	ND<0.005	ND<0.005	-	ND<0.005	ND<0.005	-	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.013		
	1/1/2000	1.2	-	-	0.0045	-	0.17	ND<0.002	ND<0.002	ND<0.002	-	-	ND<0.002	ND<0.002	ND<0.002	-	ND<0.002	ND<0.002	-	ND<0.002	ND<0.002	ND<0.001	ND<0.002	0.0086		
	7/31/2000	0.54	-	-	0.0062	-	0.11	ND<0.002	ND<0.002	ND<0.002	-	-	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	-	ND<0.002	ND<0.002	ND<0.001	ND<0.002	0.0073		
	2/7/2001	0.05	-	-	ND<0.001	-	0.012	ND<0.001	ND<0.001	ND<0.001	-	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0011	ND<0.001	-	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	0.0035		
	7/24/2001	0.59	-	-	ND<0.001	-	0.013	ND<0.001	ND<0.001	ND<0.001	-	-	ND<0.001	ND<0.001	ND<0.001	-	0.0014	ND<0.001	-	ND<0.001	ND<0.001	ND<0.005	ND<0.001	0.0053		
	5/7/2002	0.49	-	-	ND<0.001	91	0.004	ND<0.001	ND<0.001	ND<0.001	-	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0036		
	9/24/2002	0.11	-	-	0.0041	76	ND<0.005	ND<0.001	ND<0.001	ND<0.002	-	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.002	ND<0.001	-	ND<0.001	ND<0.005	ND<0.001	ND<0.001	0.0018		
	5/7/2002 DUP	0.44	-	-	ND<0.001	NA	0.0054	ND<0.001	ND<0.001	ND<0.001	-	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0017	ND<0.001	-	ND<0.001	ND<0.005	ND<0.001	ND<0.001	0.0036		
	9/24/2002 DUP	0.11	-	-	0.0042	NA	ND<0.005	ND<0.001	ND<0.001	ND<0.002	-	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0019	ND<0.001	-	ND<0.001	ND<0.005	ND<0.001	ND<0.001	0.0018		
	6/30/2004	0.54	-	-	0.004J	0.05J	0.01	ND<0.0005	ND<0.0005	0.0019	ND<0.0005	0.0014	ND<0.005	-	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	-	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.019
MW-A	2/20/1991	0.0498	-	-	-	-	17	14	1.8	12.5	-	-	-	-	-	-	-	ND<0.25	-	-	-	-	-	-		
Abandoned	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MW-B	2/25/1991	ND<1	-	-	-	-	3.5	0.03	0.18	0.467	-	-	-	-	-	-	-	ND<0.005	-	-	-	-	-	-	-	
Abandoned	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MW-I	2/19/1991	11	-	-	-	-	9.2	2.4	1.5	8.7	-	-	-	-	-	-	-	ND<0.05	-	-	-	-	-	-	-	
Abandoned	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MW-C	3/31/1995	0.06	-	-	-	0.0006	0.014	ND<0.0005	0.0027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Abandoned	7/11/1995	ND<0.05	-	-	-	-	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10/5/1995	ND<0.5	-	-	-	-	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/8/1995	ND<0.5	-	-	-	-	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/7/1996	ND<0.5	-	-	-	-	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/17/1996	ND<0.5	-	-	ND<0.02	-	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-D	3/31/1995	ND<0.05	-	-	-	-	ND<0.0005	0.0066	ND<0.0005	0.0016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Abandoned	7/11/1995	ND<0.05	-	-	-	-	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10/5/1995	ND<0.5	-	-	-	-	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/8/1995	ND<0.5	-	-	-	-	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/7/1996	ND<0.5	-	-	-	-	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/17/1996	ND<0.5	-	-	ND<0.02	-	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-E	3/31/1995	0.06	-	-	-	-	0.0091	0.0066	0.0011	0.0023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Abandoned	7/11/1995	ND<0.05	-	-	-	-	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10/5/1995	ND<0.5	-	-	-	-	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/8/1995	ND<0.5	-	-	-	-	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/7/1996	ND<0.5	-	-	-	-	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/17/1996	ND<0.5	-	-	ND<0.02	-	ND<0.0005	ND<0.0005	ND<0.0005	ND<0.0015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4-TMB	1,3,5-TMB	TOX	VC	CB
Operational Area 1: Bloomfield Proper																			
MW-106	12/20/1995	-	-	-	-	-	-	-	-	-	-	0.015	0.0015	-	-	-	-	-	
	7/31/1996	ND<0.0003	-	-	-	-	-	-	-	-	ND<0.0003	0.017	0.0025	-	-	-	0.00098	-	
	12/17/1996	ND<0.002	ND<0.002	-	ND<0.002	-	-	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	-	ND<0.004	-	
	1/20/1998	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	ND<0.005	0.01	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005	
	8/20/1998	ND<0.005	ND<0.005	-	0.0059	-	-	ND<0.01	ND<0.005	ND<0.005	-	ND<0.005	0.0058	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005	
	1/27/1999	ND<0.005	ND<0.005	-	0.0072	-	-	ND<0.01	ND<0.005	ND<0.005	-	ND<0.005	ND<0.005	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005	
	7/19/1999	ND<0.01	ND<0.001	-	0.0052	-	-	ND<0.01	ND<0.001	0.0015	-	ND<0.001	0.0064	0.0026	ND<0.001	ND<0.001	-	ND<0.005	ND<0.001
	1/14/2000	ND<0.01	ND<0.01	-	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	0.0096	ND<0.001	ND<0.001	-	ND<0.005	ND<0.001	
	7/31/2000	ND<0.001	ND<0.01	ND<0.001	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.001	ND<0.001	ND<0.01	0.021	0.021	0.0021	ND<0.001	ND<0.001	-	0.025	-
	2/6/2001	ND<0.01	ND<0.001	ND<0.001	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	0.25	0.0028	ND<0.001	ND<0.001	-	0.015	ND<0.001
	7/24/2001	ND<0.01	ND<0.001	-	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	0.23	0.0021	ND<0.001	ND<0.001	-	ND<0.0005	ND<0.001
	5/7/2002	ND<0.01	ND<0.001	ND<0.001	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	0.017	0.0019	ND<0.001	ND<0.001	-	0.015	ND<0.001
	9/24/2002	ND<0.01	ND<0.001	ND<0.001	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	0.024	0.0016	ND<0.001	ND<0.001	-	0.021	ND<0.001
	7/1/2004	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	-	ND<0.005	-	ND<0.005	-	ND<0.005	0.021	ND<0.005	ND<0.005	ND<0.005	-	ND<0.005	ND<0.005
MW-107	12/21/1995	-	-	-	-	-	-	-	-	-	-	0.0065	-	-	-	-	-	-	-
	7/31/1996	ND<0.0003	-	-	-	-	-	-	-	-	ND<0.0003	0.019	0.00078	-	-	-	0.0011	-	
	12/17/1996	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.005	ND<0.005	ND<0.005	-	ND<0.005	0.033	ND<0.005	ND<0.005	ND<0.005	-	ND<0.01	-
	1/20/1998	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	ND<0.005	0.047	ND<0.005	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	8/20/1998	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	ND<0.005	0.025	ND<0.005	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	1/27/1999	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	ND<0.005	0.044	ND<0.005	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	7/19/1999	ND<0.05	ND<0.005	-	ND<0.005	-	-	ND<0.05	ND<0.005	ND<0.005	-	ND<0.005	0.077	ND<0.005	ND<0.005	ND<0.005	-	ND<0.025	ND<0.005
	1/12/2000	ND<0.01	ND<0.001	-	0.0022	-	-	ND<0.01	ND<0.001	0.0001	-	ND<0.001	0.11	0.0034	ND<0.001	ND<0.001	-	ND<0.0005	0.0013
	7/31/2000	ND<0.05	ND<0.005	ND<0.005	0.049	0.11	0.14	ND<0.05	ND<0.005	0.0086	ND<0.011	ND<0.005	0.059	ND<0.005	ND<0.005	ND<0.005	-	0.053	ND<0.005
	2/6/2001	ND<0.01	ND<0.001	0.001	0.057	-	-	ND<0.01	ND<0.001	0.0097	-	ND<0.001	0.0045	ND<0.001	ND<0.001	ND<0.001	-	0.021	ND<0.001
	7/26/2001	ND<0.01	ND<0.001	-	0.053	-	-	ND<0.01	ND<0.001	0.0085	-	ND<0.001	0.013	ND<0.001	ND<0.001	ND<0.001	-	ND<0.0005	ND<0.001
	5/9/2002	ND<0.02	ND<0.002	ND<2	0.048	-	-	ND<0.02	ND<0.002	0.0084	-	ND<0.002	0.0057	ND<0.02	ND<0.002	ND<0.002	-	0.03	ND<0.002
	9/25/2002	ND<0.02	ND<0.002	ND<2	0.068	-	-	ND<0.02	ND<0.002	0.012	-	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	-	0.028	ND<0.002
	7/1/2004	ND<0.005	0.002J	0.002J	0.14	-	-	0.002J	-	0.02	-	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	-	0.012	ND<0.005
MW-203	6/1/1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/1/1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/1/1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/1/1990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/1/1990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/1/1991	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/1/1991	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1991	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1991	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/1/1992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/1/1992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/1/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5/1/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5/25/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/1/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/13/1995	-	-	-	-	-	-	-	-	-	-	-	0.0045	-	-	-	0.0014	-	
	7/31/1996	ND<0.0003	-	-	-	-	-	-	-	-	ND<0.0003	0.0017	0.00034	-	-	-	0.002	-	
	12/17/1996	ND<0.001	ND<0.001	-	ND<0.001	-	-	ND<0.001	ND<0.001	ND<0.001	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	-	ND<0.002	-
	1/20/1998	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	8/20/1998	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	1/27/1999	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	7/19/1999	ND<0.01	ND<0.001	-	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	0.0019	ND<0.001	ND<0.001	ND<0.001	-	ND<0.0005	ND<0.001
	1/12/2000	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.01	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	-	ND<0.005	ND<0.001
	7/31/2000	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.01	ND<0.01	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	-	0.00051	ND<0.001
	2/6/2001	ND<0.01	ND<0.001	-	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	0.0016	ND<0.001	ND<0.001	ND<0.001	-	0.0011	ND<0.001
	7/24/2001	ND<0.01	ND<0.001	-	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	0.0018	ND<0.001	ND<0.001	ND<0.001	-	0.0083	ND<0.001
	5/8/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.002	0.0017	ND<0.001	ND<0.001	ND<0.001	-	0.00053	ND<0.001
	9/25/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.003	0.0025	ND<0.001	ND<0.001	ND<0.001	-	0.0011	ND<0.001

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB ^a	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4-TMB	1,3,5-TMB	TOX	VC	CB	
	7/1/2004	ND<0.005	ND<0.005	—	—	—	—	ND<0.005	—	ND<0.005	—	ND<0.005	0.004J	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	
Operational Area 2: East Tank Farm A																				
MW-103	8/1/1985	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
MW-103	3/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	5/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	5/25/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	11/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/13/1995	ND<0.0005	—	—	—	—	—	—	—	—	—	ND<0.0005	ND<0.0005	ND<0.0005	—	—	0.0025	—		
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	—	—	ND<0.0003	ND<0.0003	0.0038	—	—	ND<0.0003	—		
	12/17/1996	ND<0.005	ND<0.005	0.0084	—	—	ND<0.005	ND<0.005	ND<0.005	—	—	0.0089	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.054	—	
	1/2/1998	ND<0.005	ND<0.005	0.015	—	—	ND<0.01	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.028	ND<0.005	
	8/19/1998	ND<0.005	0.0069	—	0.018	—	ND<0.01	ND<0.005	0.0054	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.01	ND<0.005	
	1/27/1999	ND<0.005	ND<0.005	0.0059	—	—	ND<0.01	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.01	ND<0.005	
	7/19/1999	ND<0.01	0.0031	—	0.0081	—	ND<0.01	ND<0.001	0.0039	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.005	ND<0.001	
	1/1/2000	ND<0.01	0.0035	—	0.0067	—	ND<0.01	ND<0.001	0.0037	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.005	ND<0.001	
	8/4/2000	ND<0.01	ND<0.001	ND<0.001	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.00075	ND<0.001		
	2/9/2001	ND<0.01	ND<0.001	—	ND<0.001	—	ND<0.01	ND<0.001	0.0036	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.005	ND<0.001		
	7/25/2001	ND<0.01	0.0029	—	0.0055	—	ND<0.01	ND<0.001	0.0032	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0058	0.0017	ND<0.005	ND<0.001
	5/8/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	—	ND<0.01	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	9/25/2002	ND<0.01	0.0039	ND<1	0.013	—	ND<0.01	ND<0.001	0.0043	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0014	ND<0.001	ND<0.005	ND<0.001
MW-202	8/1/1985	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	11/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	—	—	ND<0.0003	0.00034	0.00037	—	—	ND<0.0003	—		
	12/17/1996	ND<0.05	ND<0.05	0.1	—	—	ND<0.05	ND<0.05	ND<0.05	—	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.01	—	
	1/21/1998	ND<0.005	0.011	—	0.1	—	ND<0.01	ND<0.005	0.016	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.01	ND<0.005	
	8/8/1998	ND<0.005	0.016	—	0.091	—	ND<0.01	ND<0.005	0.026	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.01	ND<0.005	
	1/27/1999	ND<0.005	ND<0.005	—	0.13	—	ND<0.01	ND<0.005	0.029	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.01	ND<0.005	
	7/19/1999	ND<0.02	0.019	—	0.13	—	ND<0.02	ND<0.002	0.029	—	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.001	ND<0.002	
	1/11/2000	ND<0.01	0.0072	—	0.029	—	ND<0.01	ND<0.001	0.023	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	
	8/2/2000	ND<0.01	0.0019	0.018	0.01	ND<0.01	ND<0.01	ND<0.001	0.023	—	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	2/7/2000	ND<0.01	0.0011	0.018	0.0077	—	ND<0.01	ND<0.001	0.01	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0033	ND<0.001	
	7/24/2001	ND<0.01	0.0024	—	0.016	—	ND<0.01	ND<0.001	0.004	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	5/8/2002	ND<0.01	0.0031	1.4	0.032	—	ND<0.01	ND<0.001	0.0036	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	9/26/2002	ND<0.05	ND<0.005	ND<5	0.069	—	ND<0.05	ND<0.005	0.0056	—	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.0025	ND<0.005		
MW-204	6/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	9/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4-TMB	1,3,5-TMB	TOX	VC	CB
	9/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	4/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5/25/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/13/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	8/1/1996	ND<0.001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0052	
	12/17/1996	ND<0.05	ND<0.05	—	ND<0.05	—	—	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	—	ND<0.1	
	1/21/1998	ND<0.005	ND<0.005	—	0.036	—	—	0.065	ND<0.005	0.081	—	ND<0.005	ND<0.005	0.09	0.023	—	0.009	ND<0.005	
MW-204	8/2/1998	ND<0.05	ND<0.05	—	0.054	—	—	ND<0.1	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	0.2	ND<0.05	—	ND<0.1	ND<0.05	
	1/28/1999	ND<0.05	ND<0.05	—	ND<0.05	—	—	ND<0.1	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	0.21	0.052	—	ND<0.1	ND<0.05	
	1/28/1999 DUP	ND<0.005	ND<0.005	—	0.048	—	—	0.094	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	0.25	0.061	—	0.012	ND<0.005	
	7/19/1999	ND<0.1	ND<0.01	—	0.023	—	—	ND<0.1	ND<0.1	ND<0.1	—	ND<0.01	ND<0.01	0.047	0.011	—	ND<0.005	ND<0.01	
	1/11/2000	ND<0.1	ND<0.01	—	0.019	—	—	ND<0.1	ND<0.01	ND<0.01	—	ND<0.01	ND<0.01	ND<0.01	ND<0.01	—	ND<0.005	ND<0.01	
	8/3/2000	ND<0.05	ND<0.005	ND<0.005	0.021	0.064	0.088	ND<0.01	ND<0.005	ND<0.005	ND<0.01	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	2/8/2001	ND<0.01	ND<0.001	ND<0.001	ND<0.001	0.029	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.005	ND<0.001	
	7/24/2001	ND<0.01	ND<0.001	—	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	5/9/2002	ND<0.02	ND<0.002	ND<2	0.013	—	—	ND<0.02	ND<0.002	ND<0.002	—	ND<0.002	ND<0.002	0.026	0.008	—	0.0035	ND<0.002	
	9/26/2002	ND<0.02	ND<0.002	ND<2	0.0095	—	—	ND<0.02	ND<0.002	ND<0.002	—	ND<0.002	ND<0.002	0.022	0.0077	—	0.0034	ND<0.002	
	6/30/2004	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	0.004J	—	ND<0.003	—	ND<0.005	ND<0.005	0.0068	0.002J	—	ND<0.005	ND<0.005	
W-7	8/4/2000	ND<0.01	ND<0.01	ND<0.01	ND<0.01	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	2/8/2001	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	
	7/26/2001	ND<0.01	ND<0.001	—	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001		
	5/7/2002	ND<0.01	ND<0.001	—	ND<1	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	
	9/24/2002	ND<0.01	ND<0.001	—	ND<1	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	
Operational Area 3: Processing Area																			
MW-104	6/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Abandoned	9/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5/25/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	11/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/13/1995	—	—	—	—	—	—	—	—	—	—	—	—	0.00078	—	—	—	—	
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	ND<0.0003	ND<0.0003	0.00054	—	—	—	—	ND<0.0003	—	
	12/16/1996	ND<0.001	ND<0.001	—	0.0052	—	—	ND<0.001	ND<0.001	0.0029	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0032	—		
	1/20/1998	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	8/18/1998	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
	1/27/1999	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	
MW-104A	7/19/1999	ND<0.01	ND<0.001	—	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	0.0012	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	
	1/13/2000	ND<0.01	ND<0.001	—	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.005	ND<0.001	
	8/2/2000	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0018	ND<0.001	ND<0.001	ND<0.0005	ND<0.001
	2/7/2001	ND<0.01	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	0.0014	ND<0.001	ND<0.001	ND<0.0005	ND<0.001	

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4-TMB	1,3,5-TMB	TOX	VC	CB
	7/25/2001	ND<0.01	ND<0.001	-	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	-	ND<0.005	ND<0.001	
	5/7/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	-	ND<0.005	ND<0.001	
	9/24/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	ND<0.001	ND<0.001	ND<0.001	-	ND<0.005	ND<0.001	
	6/30/2004	ND<0.005	-	ND<0.005	ND<0.005	ND<0.005	-	-	-	ND<0.005	-	ND<0.005	0.002J	0.004J	ND<0.005	ND<0.005	-	ND<0.005	ND<0.005
MW-504	12/1/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/1/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/1/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8/1/1996	ND<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0011	-	
	12/18/1996	ND<0.25	ND<0.25	-	0.35	-	-	2.3	0.37	ND<0.25	-	ND<0.25	ND<0.25	5	2.1	-	ND<0.5	-	
	1/21/1998	ND<0.25	ND<0.25	-	ND<0.25	-	-	0.36	ND<0.25	ND<0.25	-	ND<0.25	ND<0.25	0.8	0.34	-	ND<0.5	ND<0.25	
	8/20/1998	NS	NS	-	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/28/1999	NS	NS	-	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/19/1999	NS	NS	-	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/10/2000	NS	NS	-	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/31/2000	NS	NS	-	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-504	2/6/2001	NS	NS	-	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/24/2001	NS	NS	-	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	5/6/2002	NS	NS	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/23/2002	NS	NS	NS	NS	-	-	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Operational Area 4: West Tank Farm A																			
MW-101	8/1/1985	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	
	6/1/1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/1/1992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/1/1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/1/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/13/1995	0.0013	-	-	-	-	-	-	-	-	-	0.036	0.00097	0.1	-	-	ND<0.005	-	
	7/31/1996	ND<0.0003	-	-	-	-	-	-	-	-	24	ND<0.0003	0.041	-	-	ND<0.0003	-	-	
	12/17/1996	ND<0.025	ND<0.025	-	ND<0.025	-	-	ND<0.025	ND<0.025	ND<0.025	-	0.057	ND<0.025	0.24	ND<0.025	ND<0.025	-	ND<0.05	-
	1/19/1998	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	0.18	ND<0.005	0.32	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	8/18/1998	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	0.034	ND<0.005	ND<0.005	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	1/26/1999	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	0.0193	ND<0.005	0.16	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	7/19/1999	ND<0.02	ND<0.002	-	ND<0.002	-	-	ND<0.02	ND<0.002	ND<0.002	-	0.078	0.0085	0.27	ND<0.002	ND<0.002	-	ND<0.001	ND<0.002
	1/10/2000	ND<0.01	ND<0.001	-	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	0.21	0.0035	0.26	ND<0.001	ND<0.001	-	ND<0.005	ND<0.001
	8/3/2000	ND<0.02	ND<0.002	ND<0.002	ND<0.002	ND<0.01	ND<0.01	ND<0.02	ND<0.002	ND<0.002	ND<0.01	0.037	0.019	0.27	ND<0.002	ND<0.002	-	0.005	ND<0.002
	2/9/2001	ND<0.05	ND<0.005	ND<0.005	ND<0.005	-	-	ND<0.05	ND<0.005	ND<0.005	-	0.099	0.011	0.1	ND<0.005	ND<0.005	-	0.0032	ND<0.005
	7/25/2001	ND<0.01	ND<0.001	-	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	0.0081	0.015	0.1	ND<0.001	ND<0.001	-	0.0043	ND<0.001
	5/6/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	0.0062	0.0056	0.078	ND<0.001	ND<0.001	-	0.0019	ND<0.001
	9/25/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	0.0045	0.0045	0.079	ND<0.001	ND<0.001	-	ND<0.0005	ND<0.001
MW-105	12/21/1995	-	-	-	-	-	-	-	-	-	-	-	0.016	-	0.046	-	-	-	
	7/31/1996	ND<0.0003	-	-	-	-	-	-	-	-	-	0.024	ND<0.0003	0.033	-	-	ND<0.0003	-	
	12/16/1996	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.005	ND<0.005	ND<0.005	-	0.08	ND<0.005	0.11	ND<0.005	ND<0.005	-	ND<0.01	-
	1/20/1998	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	0.15	ND<0.005	0.21	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	8/18/1998	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	0.0967	ND<0.005	0.162	ND<0.005	ND<0.005	-	ND<0.01	ND<0.005
	1/25/1999	ND<0.005	ND<0.005	-	ND<0.005	-	-	ND<0.01	ND<0.005	ND<0.005	-	0.125	ND<0.005	0.187	ND<0.005	ND<0.005	-	0.00643	ND<0.005
	7/19/1999	ND<0.01	ND<0.001	-	ND<0.001	ND<0.0095	ND<0.0095	ND<0.01	ND<0.001	ND<0.001	-	0.078	0.015	0.28	ND<0.001	ND<0.001	-	ND<0.0005	ND<0.001
	1/10/2000	ND<0.05	ND<0.005	ND<0.005	ND<0.005	-	-	ND<0.05	ND<0.005	ND<0.005	-	ND<0.005	0.062	0.13	ND<0.005	ND<0.005	-	ND<0.0025	ND<0.005
	7/31/2000	ND<0.05	ND<0.005	ND<0.005	ND<0.005	-	-	ND<0.0095	ND<0.005	ND<0.005	ND<0.0095	ND<0.005	0.059	0.16	ND<0.005	ND<0.005	-	0.01	ND<0.005
	2/6/2001	ND<0.05	ND<0.005	-	ND<0.005	-	-	ND<0.05	ND<0.005	ND<0.005	-	ND<0.005	0.021	0.047	ND<0.005	ND<0.005	-	0.0079	ND<0.005
	7/24/2001	ND<0.001	ND<0.001	-	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.001	0.011	0.036	ND<0.001	-	-	ND<0.005	ND<0.001
	5/7/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.002	0.0068	0.038	ND<0.001	ND<0.001	-	0.0039	ND<0.001
	9/24/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	-	-	ND<0.01	ND<0.001	ND<0.001	-	ND<0.003	0.0064	0.043	ND<0.001	ND<0.001	-	0.014	ND<0.001
	6/30/2004	ND<0.005	ND<0.005	ND<0.005	ND<0.005	-	-	ND<0.005	-	ND<0.005	-	0.022	0.0054	0.076	ND<0.005	ND<0.005	-	0.0072	ND<0.005
MW-201	8/1/1985	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/1/1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/1/1988	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3/1/1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/1/1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	9/1/1989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4-TMB	1,3,5-TMB	TOX	VC	CB
	12/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1995	0.0007	—	—	—	—	—	—	—	—	—	0.058	0.0017	0.11	—	—	—	—	
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	—	—	0.11	ND<0.0003	0.12	—	—	ND<0.0003	—	
	12/17/1996	ND<0.01	ND<0.01	0.021	—	—	ND<0.01	ND<0.01	ND<0.01	—	0.21	ND<0.01	0.21	0.14	0.028	—	ND<0.02	—	
	1/21/1998	ND<0.005	ND<0.005	0.021	—	—	0.011	ND<0.005	ND<0.005	—	0.16	0.0053	0.18	0.02	0.012	—	ND<0.01	ND<0.005	
	1/21/1998 DUP	ND<0.005	ND<0.005	0.02	—	—	ND<0.01	ND<0.005	ND<0.005	—	0.012	0.0055	0.16	0.018	0.0099	—	ND<0.01	ND<0.005	
	8/18/1998	ND<0.005	ND<0.005	—	ND<0.005	—	0.011	ND<0.005	ND<0.005	—	0.016	ND<0.005	0.12	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	7/19/1999	ND<0.05	ND<0.005	0.025	—	—	ND<0.05	0.005	ND<0.005	—	0.04	0.012	0.16	0.053	0.015	—	ND<0.025	ND<0.005	
	1/2/2000	ND<0.05	ND<0.005	0.015	—	—	ND<0.05	0.0054	ND<0.005	—	ND<0.005	ND<0.005	0.038	0.032	ND<0.005	—	ND<0.025	ND<0.005	
MW-201	8/4/2000	ND<0.05	ND<0.005	0.012	ND<0.01	ND<0.01	ND<0.01	ND<0.005	ND<0.005	ND<0.01	ND<0.005	0.032	0.033	ND<0.005	—	ND<0.025	ND<0.005		
	2/9/2001	ND<0.1	ND<0.01	0.032	—	—	ND<0.1	ND<0.01	ND<0.01	—	ND<0.01	ND<0.01	0.013	0.024	ND<0.01	—	ND<0.005	ND<0.01	
	7/26/2001	ND<0.1	0.031	—	0.016	—	ND<0.1	0.0036	0.0033	—	ND<0.01	0.0068	0.008	0.017	0.0025	—	ND<0.01	ND<0.02	
	5/9/2002	ND<0.02	ND<0.002	ND<0.2	0.0086	—	ND<0.02	0.0024	0.0021	—	ND<0.002	0.0042	0.014	0.0056	0.0038	—	0.0011	ND<0.002	
	9/26/2002	ND<0.01	0.0024	ND<1	0.012	—	ND<0.001	0.0026	0.0022	—	ND<0.001	0.0033	0.029	0.012	0.014	—	0.0014	ND<0.001	
	6/30/2004	ND<0.005	ND<0.005	ND<0.005	0.024	—	—	0.016	—	0.005J	—	ND<0.005	ND<0.005	0.0054	0.012	—	0.002J	ND<0.005	
MW-205	6/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5/25/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	11/1/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1995	0.00058	—	—	—	—	—	—	—	—	—	0.0028	0.0053	0.08	—	—	—	—	
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	—	—	0.0035	ND<0.0003	0.084	—	—	ND<0.0003	—	
	12/16/1996	ND<0.002	ND<0.002	0.0011	ND<0.01	ND<0.01	ND<0.002	ND<0.002	ND<0.002	—	ND<0.002	ND<0.002	0.045	ND<0.002	ND<0.002	—	ND<0.004	—	
	1/20/1998	ND<0.005	ND<0.005	—	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	0.048	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	8/21/1998	ND<0.005	ND<0.005	—	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	0.062	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	1/26/1999	ND<0.005	ND<0.005	—	ND<0.005	—	ND<0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	0.0251	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	7/19/1999	ND<0.01	ND<0.001	—	ND<0.001	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	0.0018	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001	
	1/11/2000	ND<0.01	ND<0.001	ND<0.001	0.0011	ND<0.01	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	0.012	ND<0.001	ND<0.001	—	0.013	ND<0.001	
	8/2/2000	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	0.0011	ND<0.001	ND<0.001	—	0.013	ND<0.001	
	2/7/2001	ND<0.01	ND<0.001	—	0.0015	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	0.0011	ND<0.001	ND<0.001	—	0.00096	ND<0.001	
	7/26/2001	ND<0.01	ND<0.001	—	ND<0.001	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	0.0011	ND<0.001	ND<0.001	—	0.0005	ND<0.001	
	5/8/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	0.011	ND<0.001	ND<0.001	—	0.00065	ND<0.001	

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4-TMB	1,3,5-TMB	TOX	VC	CB	
W-8	9/25/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0011	—	0.0047	ND<0.001	
	6/30/2004	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.005	—	ND<0.005	—	—	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	ND<0.005	
	8/4/2000	ND<0.001	ND<0.001	—	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.005	ND<0.001	
	2/6/2001	NS	NS	—	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/26/2001	ND<0.001	ND<0.001	—	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.005	ND<0.001	
	5/7/2002	ND<0.01	ND<0.001	—	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.005	ND<0.001	
	9/24/2002	ND<0.01	ND<0.001	—	ND<0.001	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.005	ND<0.001	
	7/1/2004	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	—	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	
Operational Area 5: Lakeland Property																				
MW-206	6/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Abandoned	9/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1992	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
MW-206	9/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Abandoned	12/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	—	ND<0.0003	ND<0.0003	0.0014	—	—	—	ND<0.0003	—	—	
	12/18/1996	ND<0.1	ND<0.1	—	0.12	—	—	0.13	ND<0.1	ND<0.1	—	ND<0.1	ND<0.1	0.19	0.14	—	ND<0.2	—	—	
	1/21/1998	ND<0.005	0.017	—	0.22	—	—	0.059	0.005	0.011	—	ND<0.005	ND<0.005	ND<0.005	0.035	0.012	—	ND<0.01	0.05	—
	8/20/1998	NS	NS	—	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-501	3/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Destroyed	9/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/13/1995	0.001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	—	ND<0.0003	ND<0.0003	0.00039	—	—	—	ND<0.0003	—	—	
	12/18/1996	ND<0.05	ND<0.05	—	0.02	—	—	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	0.31	0.13	—	ND<0.1	—	
	1/21/1998	ND<0.005	ND<0.005	—	0.0061	—	—	ND<0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	0.0093	ND<0.005	—	ND<0.01	ND<0.005	
	8/20/1998	NS	NS	—	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	1/26/1999	NS	NS	—	NS	—	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-501A	7/19/1999	ND<0.25	ND<0.025	—	0.052	—	—	ND<0.25	ND<0.025	ND<0.025	—	ND<0.25	ND<0.025	ND<0.025	ND<0.025	ND<0.025	—	<0.013	ND<0.025	
	1/13/2000	ND<0.1	ND<0.01	—	0.042	—	—	ND<0.1	ND<0.01	ND<0.01	—	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	—	ND<0.005	ND<0.01	
	8/2/2000	ND<0.1	ND<0.01	ND<0.01	0.15	0.094	0.14	ND<0.01	ND<0.01	ND<0.01	—	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	—	ND<0.006	ND<0.01	
	2/7/2001	ND<0.1	ND<0.01	ND<0.01	0.18	—	—	ND<0.1	ND<0.01	ND<0.01	—	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	—	0.0065	ND<0.01	
	7/25/2001	ND<0.1	ND<0.01	—	0.21	—	—	ND<0.1	ND<0.01	ND<0.01	—	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	—	ND<0.005	ND<0.01	
	5/8/2002	ND<0.02	0.011	ND<2	0.19	—	—	ND<0.02	ND<0.002	0.0093	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	—	0.0024	ND<0.002	
	9/26/2002	ND<0.1	0.038	ND<10	0.38	—	—	ND<0.1	ND<0.01	0.024	—	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	—	0.0055	ND<0.01	
MW-502	6/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/13/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	ND<0.0003	ND<0.0003	0.00052	—	—	—	ND<0.0003	—	—	—	
	12/18/1996	ND<0.5	ND<0.5	—	ND<0.5	—	—	ND<0.5	ND<0.5	ND<0.5	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	ND<1	—	
	1/22/1998	ND<0.025	ND<0.025	—	0.18	—	—	0.32	ND<0.025	ND<0.025	—	ND<0.025	ND<0.025	0.3	0.07	—	ND<0.05	ND<0.025	—	
	8/19/1998	ND<0.005	0.016	—	0.14	—	—	0.28	ND<0.005	0.01	—	ND<0.005	ND<0.005	0.34	0.06	—	ND<0.01	ND<0.005	—	
	1/26/1999	ND<0.005	ND<0.005	—	0.135	—	—	0.255	ND<0.005	0.0151	—	ND<0.005	ND<0.005	0.179	0.0471	—	ND<0.01	ND<0.005	—	
	7/19/1999	ND<50	ND<5	—	ND<5	—	—	ND<50	ND<5	ND<5	—	ND<5	ND<5	ND<5	ND<5	ND<5	—	ND<2.5	ND<5	
	1/13/2000	ND<10	ND<1	—	ND<1	—	—	ND<10	ND<10	ND<10	—	ND<1	ND<1	ND<1	ND<1	ND<1	—	ND<0.5	ND<1	
	8/2/2000	ND<0.1	ND<0.1	ND<0.1	0.11	0.03	0.045	0.16	ND<0.1	ND<0.1	0.08	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	—	ND<0.05	ND<0.1	

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4-TMB	1,3,5-TMB	TOX	VC	CB
	2/7/2001	ND<0.5	ND<0.05	ND<0.05	0.092	—	—	ND<0.5	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.25	ND<0.05	
	7/25/2001	ND<0.5	ND<0.05	—	0.11	—	—	ND<0.5	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	0.089	ND<0.05	ND<0.25	ND<0.05	
	5/9/2002	ND<2	ND<0.2	ND<200	ND<0.2	—	—	ND<2	ND<0.2	ND<0.2	—	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.1	ND<0.2	
	9/26/2002	ND<1	ND<0.1	ND<100	0.1	—	—	ND<1	ND<0.1	ND<0.1	—	ND<0.1	ND<0.1	ND<0.1	0.1	ND<0.1	ND<0.05	ND<0.1	
MW-503 Abandoned	6/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1988	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
MW-503B	3/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	9/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	12/1/1995	0.001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.0014	—	
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	—	—	0.09	ND<0.0003	0.13	—	—	ND<0.0003	—	
	12/18/1996	ND<0.01	ND<0.01	—	0.048	—	—	0.028	ND<0.01	0.012	—	0.014	ND<0.01	0.27	0.063	0.023	ND<0.02	—	
	1/21/1998	ND<0.005	0.006	ND<2	0.068	—	—	0.017	ND<0.005	0.012	—	ND<0.005	0.027	0.46	0.0058	0.014	ND<0.01	ND<0.005	
	8/19/1998	ND<0.005	ND<0.005	1.8	0.014	—	—	0.0053	ND<0.005	ND<0.005	—	ND<0.005	0.071	0.063	0.005	ND<0.005	ND<0.01	ND<0.005	
	2/9/1999	ND<0.05	ND<0.05	—	0.064	—	—	ND<0.05	ND<0.05	ND<0.05	—	ND<0.05	0.15	ND<0.05	ND<0.05	ND<0.1	ND<0.05		
	7/19/1999	ND<0.2	ND<0.02	—	0.13	—	—	ND<0.2	ND<0.02	0.02	—	ND<0.02	0.25	0.025	ND<0.02	ND<0.02	ND<0.01	ND<0.02	
	1/14/2000	ND<0.2	ND<0.02	—	0.17	—	—	ND<0.2	ND<0.02	ND<0.02	—	ND<0.02	0.2	0.02	ND<0.02	ND<0.02	ND<0.01	ND<0.02	
Operational Area 6: Former AST Area	8/4/2000	ND<0.01	ND<0.01	ND<0.01	0.1	ND<0.01	ND<0.01	0.023	ND<0.01	0.014	ND<0.01	0.01	0.16	ND<0.01	ND<0.01	ND<0.01	ND<0.005	ND<0.01	
	2/6/2001	ND<0.2	ND<0.02	ND<0.02	0.13	—	—	ND<0.2	ND<0.02	ND<0.02	—	ND<0.02	0.15	ND<0.02	ND<0.02	ND<0.02	ND<0.01	ND<0.02	
	7/25/2001	ND<0.5	ND<0.05	—	0.091	—	—	ND<0.5	ND<0.05	ND<0.05	—	ND<0.05	0.057	ND<0.05	ND<0.05	ND<0.05	ND<0.25	ND<0.05	
	5/9/2002	ND<0.02	0.0071	—	0.12	—	—	0.026	0.0028	0.018	—	ND<0.002	0.023	ND<0.002	0.025	0.022	0.0077	ND<0.002	
	9/26/2002	ND<0.01	0.0086	0.15	—	—	—	0.048	0.0033	0.018	—	ND<0.001	0.016	ND<0.001	0.025	0.037	0.01	ND<0.001	
	7/1/2004	ND<0.005	0.014	0.003J	0.2E	—	—	0.042	—	0.028	—	ND<0.005	—	ND<0.005	0.003J	0.004J	ND<0.005	ND<0.005	
	W-3	11/1/1989	ND<0.0005	—	—	—	—	—	—	—	—	ND<0.0005	ND<0.0005	ND<0.0005	—	—	0.0071(A)	ND<0.0005	
	Abandoned	1/1/1990	ND<0.02	—	—	—	—	—	—	—	—	ND<0.0005	ND<0.001	ND<0.0005	—	—	ND<0.002	ND<0.001	
	3/1/1990	ND<0.002	—	—	—	—	—	—	—	—	—	ND<0.0005	ND<0.001	ND<0.0005	—	—	ND<0.002	ND<0.001	
	4/1/1990	ND<0.002	—	—	—	—	—	—	—	—	—	ND<0.0005	ND<0.001	ND<0.0005	—	—	ND<0.002	ND<0.001	
W-3A	12/18/1996	ND<0.025	ND<0.025	—	ND<0.025	—	—	ND<0.025	ND<0.025	ND<0.025	—	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.05		
	1/13/1998	ND<0.005	ND<0.005	—	0.016	—	—	ND<0.01	ND<0.005	0.006	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.051	ND<0.005	
	8/20/1998	NS	NS	—	NS	—	—	NS	NS	NS	—	NS	NS	NS	NS	NS	NS	NS	
	1/13/1998	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	8/20/1998	ND<0.025	ND<0.025	—	ND<0.025	—	—	0.35	ND<0.025	ND<0.025	—	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.05		
	1/28/1999	ND<0.5	ND<0.05	—	ND<0.05	—	—	0.24	ND<0.05	ND<0.05	—	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.1	ND<0.05	
	7/19/1999	ND<0.2	0.025	—	0.026	—	—	ND<0.2	ND<0.02	ND<0.02	—	ND<0.02	ND<0.02	ND<0.02	0.037	ND<0.02	ND<0.01	ND<0.02	
	1/13/2000	ND<0.1	ND<0.01	—	ND<0.01	—	—	ND<0.1	ND<0.01	ND<0.01	—	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.01	0.007	ND<0.01	
	8/4/2000	ND<0.02	0.0097	ND<0.002	0.021	0.47	0.74	ND<0.05	ND<0.002	0.0073	ND<0.05	ND<0.002	ND<0.002	ND<0.002	0.002	0.002	—	0.005	ND<0.002
W-3A	2/8/2001	ND<0.01	0.0039	ND<0.001	0.012	—	—	0.063	ND<0.001	0.0036	—	ND<0.001	ND<0.001	ND<0.001	0.013	0.0044	—	0.0017	ND<0.001
	7/26/2001	ND<0.01	0.0087	—	0.024	—	—	0.011	ND<0.001	0.0075	—	ND<0.001	ND<0.001	ND<0.001	0.015	ND<0.001	—	0.027	ND<0.001
	5/6/2002	NS	NS	NS	NS	—	—	NS	NS	NS	—	NS	NS	NS	NS	NS	NS	NS	
	9/25/2002	NS	NS	NS	NS	—	—	NS	NS	NS	—	NS	NS	NS	NS	NS	NS	NS	
	W-3A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Offsite Wells: Walker Property	W-1	11/1/1989	ND<0.0005(A)	—	—	—	—	—	—	—	—	ND<0.0005(A)	ND<0.0005(A)	ND<0.0005(A)	—	—	0.021	ND<0.0005	
	3/1/1990	ND<0.02	—	—	—	—	—	—	—	—	—	ND<0.005	ND<0.01	ND<0.005	—	—	ND<0.02	ND<0.01	
	4/1/1990	ND<0.005	—	—	—	—	—	—	—	—	—	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	ND<0.005	
	12/18/1996	ND<0.005	ND<0.005	—	0.031	—	—	0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.01	—	
	1/14/1998	ND<0.005	ND<0.005	—	0.02	—	—	ND<0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.016	ND<0.005	
	8/20/1998	ND<0.005	ND<0.005	—	0.03	—	—	ND<0.01	ND<0.005	0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.026	ND<0.005	
	1/29/1999	ND<0.005	ND<0.005	—	0.028	—	—	ND<0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.018	ND<0.005	
	7/19/1999	ND<0.02	0.0027	—	0.023	—	—	ND<0.02	ND<0.002	0.0044	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.001	ND<0.002	
	1/13/00	ND<0.01	0.0027	—	0.024	—	—	ND<0.01	ND<0.001	0.0039	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.013	ND<0.001	
	8/3/2000	ND<0.01	0.002	ND<0.001	0.018	0.041	0.041	ND<0.01	ND<0.001	0.0032	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0073	ND<0.001	
W-3A	2/8/2001	ND<0.01	ND<0.001	—	0.0059	—	—	ND<0.01	ND<0.001	0.0018	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0063	ND<0.001	
	7/26/2001	ND<0.01	ND<0.001	—	0.0077	—	—	ND<0.01	ND<0.001	0.0022	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0068	ND<0.001	
	5/8/2002	ND<0.01	ND<0.001	ND<1	0.0024	—	—	ND<0.01	ND<0.001	ND<0.001	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.0064	ND<0.001	

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4-TMB	1,3,5-TMB	TOX	VC	CB
	9/25/2002	ND<0.01	ND<0.001	ND<1	0.0027	--	--	ND<0.01	ND<0.001	0.001	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	0.014	ND<0.001	
	7/1/2004	ND<0.005	ND<0.005	ND<0.005	--	--	--	ND<0.005	--	0.001J	--	ND<0.005	0.004J	ND<0.005	ND<0.005	ND<0.005	--	0.002	ND<0.005
	10/6/2005	--	--	--	ND<0.01	--	--	ND<0.01	ND<0.001	ND<0.001	--	ND<0.001	0.0016	ND<0.001	ND<0.001	ND<0.01	--	0.0071	--
	2/15/2006	--	ND<0.005	--	ND<0.005	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	0.0013J	ND<0.005	ND<0.005	ND<0.005	--	0.0033J	--
	8/3/2006	--	ND<0.005	--	0.0087	--	--	ND<0.005	ND<0.002	ND<0.005	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	ND<0.005	--
W-2	11/1/1989	ND<0.0005(A)	--	--	--	--	--	--	--	--	--	ND<0.0005(A)	ND<0.0005(A)	ND<0.0005(A)	--	--	--	0.075(A)	ND<0.0005
Abandoned	3/1/1990	ND<0.002	--	--	--	--	--	--	--	--	--	ND<0.0005	ND<0.0005	ND<0.0005	--	--	--	ND<0.002	ND<0.001
	4/1/1990	ND<0.005	--	--	--	--	--	--	--	--	--	ND<0.0025	ND<0.005	ND<0.0025	--	--	--	0.0059	ND<0.001
	12/18/1996	ND<0.002	ND<0.002	--	0.012	--	--	ND<0.002	ND<0.002	ND<0.002	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	0.011	--	
	1/14/1998	ND<0.005	ND<0.005	--	0.006	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	0.027	ND<0.005	
	8/20/1998	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
W-4	3/1/1990	ND<0.0005	--	--	--	--	--	--	--	--	--	ND<0.0005	ND<0.0005	ND<0.0005	--	--	--	ND<0.0005	ND<0.0005
	4/1/1990	ND<0.002	--	--	--	--	--	--	--	--	--	ND<0.001	ND<0.001	ND<0.001	--	--	--	0.0043	ND<0.001
	12/18/1996	ND<0.005	ND<0.005	--	0.018	--	--	ND<0.005	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	ND<0.01	--	
	1/14/1998	ND<0.005	ND<0.005	--	0.027	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	0.016	ND<0.005	
	8/20/1998	ND<0.005	ND<0.005	--	0.025	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	0.0098	ND<0.005	
	12/9/1999	ND<0.005	ND<0.005	--	0.016	--	--	ND<0.01	ND<0.005	ND<0.005	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	0.011	ND<0.005	
	7/19/1999	ND<0.02	ND<0.002	--	0.015	--	--	ND<0.02	ND<0.002	0.0027	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	ND<0.001	ND<0.002	
	1/3/2000	ND<0.01	ND<0.001	--	0.0016	--	--	ND<0.01	ND<0.001	0.0014	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	0.013	ND<0.001	
	8/3/2000	ND<0.01	ND<0.001	ND<0.001	0.0023	ND<0.01	ND<0.01	ND<0.01	ND<0.001	0.0015	ND<0.01	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	0.012	ND<0.001	
	2/8/2001	ND<0.01	ND<0.001	--	0.003	--	--	ND<0.01	ND<0.001	0.0011	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	0.007	ND<0.001	
	7/2/2001	ND<0.01	ND<0.001	--	0.0057	--	--	ND<0.01	ND<0.001	0.0017	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	
	5/8/2002	ND<0.01	ND<0.001	ND<1	0.0023	--	--	ND<0.01	ND<0.001	0.0014	--	ND<0.001	0.002	ND<0.001	ND<0.001	--	0.0052	ND<0.001	
	9/25/2002	ND<0.01	ND<0.001	ND<1	0.0049	--	--	ND<0.001	ND<0.001	0.0023	--	ND<0.001	0.0038	ND<0.001	ND<0.001	--	ND<0.0005	ND<0.001	
	7/1/2004	ND<0.005	ND<0.005	ND<0.005	0.003J	--	--	ND<0.005	--	0.001J	--	ND<0.005	0.001J	ND<0.005	ND<0.005	--	0.011	ND<0.005	
	10/6/2005	--	--	--	0.0042	--	--	ND<0.01	ND<0.001	0.0011	--	ND<0.001	ND<0.001	ND<0.001	ND<0.001	--	0.0013	--	
	2/15/2006	--	ND<0.005	--	0.0075	--	--	ND<0.005	ND<0.005	0.002J	--	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	0.0024J	--	
	8/3/2006	--	ND<0.005	--	ND<0.002	--	--	ND<0.005	ND<0.002	ND<0.005	--	ND<0.002	ND<0.002	ND<0.002	ND<0.002	--	ND<0.005	--	
EW-1	11/1/1989	ND<0.005	--	--	--	--	--	--	--	--	--	ND<0.005	0.0098	ND<0.005	--	--	--	0.029	ND<0.005
	3/1/1990	ND<0.1	--	--	--	--	--	--	--	--	--	ND<0.25	ND<0.05	ND<0.25	--	--	--	ND<0.1	ND<0.05
	4/1/1990	ND<0.005	--	--	--	--	--	--	--	--	--	ND<0.001	0.02	ND<0.01	--	--	--	ND<0.02	ND<0.01
	8/21/1998	ND<0.05	ND<0.05	--	0.17	--	--	0.15	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	ND<0.1	ND<0.05	
	1/28/1999	ND<0.05	ND<0.05	--	0.15	--	--	0.13	ND<0.05	ND<0.05	--	ND<0.05	ND<0.05	ND<0.05	ND<0.05	--	ND<0.1	ND<0.05	
	7/19/1999	ND<0.25	ND<0.025	--	0.16	--	--	ND<0.25	ND<0.025	ND<0.025	--	ND<0.025	ND<0.025	ND<0.025	ND<0.025	0.025	<0.013	ND<0.025	
	1/13/2000	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/31/2000	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/6/2001	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/26/2001	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	5/6/2002	NS	NS	NS	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/25/2002	NS	NS	NS	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Offsite Wells: Metropolitan State Hosp																			
MW-600	8/1/1990	--	--	--	--	--	--	--	--	--	--	ND<0.001	ND<0.001	0.00053	--	--	--	ND<0.001	--
Abandoned	2/20/1991	--	--	--	--	--	--	--	--	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.8	0.58	--	ND<1
	12/13/1995	--	--	--	--	--	--	--	--	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	8/1/1996	ND<0.001	--	--	--	--	--	--	--	--	--	ND<0.001	ND<0.001	0.00053	--	--	--	ND<0.001	--
	12/19/1996	ND<0.5	ND<0.5	--	ND<0.5	--	--	ND<0.5	ND<0.5	ND<0.5	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.8	0.58	--	ND<1
	1/22/1998	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/20/1998	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/28/1999	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/19/1999	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/10/2000	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/31/2000	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/6/2001	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/24/2001	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/6/2002	NS	NS	NS	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/23/2002	NS	NS	NS	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-601	8/1/1990	--	--	--	--	--	--	--	--	--	--	ND<0.001	ND<0.001	0.00051	--	--	--	0.0019	--
Abandoned	2/20/1991	--	--	--	--	--	--	--	--	--	--	ND<0.001	ND<0.001	0.00051	--	--	--	ND<1	--
	12/13/1995	--	--	--	--	--	--	--	--	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.1	ND<0.5	--	ND<1
	8/1/1996	ND<0.001	--	--	--	--	--	--	--	--	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	12/19/1996	ND<0.5	ND<0.5	--	ND<0.5	--	--	ND<0.5	ND<0.5	ND<0.5	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.1	ND<0.5	--	ND<1
	1/22/1998	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/20/1998	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/28/1999	NS	NS	--	NS	--	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/19/1999	ND<50	ND<5	--	ND<5	--	--	ND<50	ND<5	ND<5	--	ND<5	ND<5	ND<5	ND<5	--	<25	ND<5	--
	1/13/2000	ND<10	ND<1	--	ND<1	--	--	ND<10	ND<1	ND<1	--	ND<1	ND<1	ND<1	ND<1	--	ND<0.5	ND<1	--
	8/3/2000	ND<0.2	ND<0.2	--	ND<0.2	--	--	0.069	ND<0.2	ND<0.2	ND<0.01	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	-Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4-TMB	1,3,5-TMB	TOX	VC	CB
	2/7/2001	ND<0.5	ND<0.05	ND<0.2	0.13	0.015	0.025	ND<0.5	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05	
	7/24/2001	ND<0.1	ND<0.1	ND<0.05	0.0018	—	—	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.05	ND<0.1	
	5/9/2002	ND<0.1	ND<0.1	ND<100	0.15	—	—	ND<1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.05	ND<0.1	
	9/26/2002	ND<1	ND<0.1	ND<100	0.2	—	—	ND<1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.05	ND<0.1	
	5/9/2002 DUP	ND<1	ND<0.1	ND<100	0.17	—	—	ND<1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.05	ND<0.1	
	9/26/2002 DUP	ND<1	ND<0.1	ND<100	0.11	—	—	ND<1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.05	ND<0.1	
MW-603	12/1/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7/30/1996	ND<0.0003	—	—	—	—	—	—	—	—	0.053	ND<0.0003	0.056	—	—	—	0.00045	—	
	12/16/1996	0.006	ND<0.005	—	ND<0.005	—	—	ND<0.005	ND<0.005	ND<0.005	0.037	ND<0.005	0.056	ND<0.005	ND<0.005	—	ND<0.01	—	
	1/22/1998	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	ND<0.005	0.059	ND<0.005	0.089	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	8/19/1998	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	ND<0.005	0.013	ND<0.005	0.031	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	1/27/1999	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	ND<0.005	0.025	ND<0.005	0.042	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	7/19/1999	ND<0.01	ND<0.01	—	ND<0.001	—	—	ND<0.1	ND<0.001	ND<0.001	0.037	ND<0.001	0.062	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001	
	1/11/2000	ND<0.1	ND<0.001	ND<0.001	ND<0.011	ND<0.011	ND<0.001	ND<0.001	ND<0.001	ND<0.001	0.056	ND<0.001	0.074	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001	
	7/31/2000	ND<0.01	ND<0.001	ND<0.001	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	ND<0.01	0.095	ND<0.001	0.11	ND<0.001	ND<0.001	—	0.00071	ND<0.001
	2/7/2001	ND<0.1	ND<0.001	—	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	0.089	0.0028	0.14	ND<0.001	ND<0.001	—	0.00096	ND<0.001	
	7/24/2001	ND<0.1	ND<0.001	—	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	—	0.11	0.0083	0.21	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001
	5/7/2002	ND<0.002	ND<0.002	ND<2	ND<0.002	—	—	ND<0.2	ND<0.002	ND<0.002	—	0.17	0.034	0.16	ND<0.002	ND<0.002	—	ND<0.01	ND<0.002
	9/24/2002	ND<0.002	ND<0.002	ND<2	ND<0.002	—	—	ND<0.2	ND<0.002	ND<0.002	—	0.21	0.053	0.21	ND<0.002	ND<0.002	—	0.0016	ND<0.002
	7/1/2004	ND<0.005	ND<0.005	ND<0.005	0.002J	—	—	ND<0.005	—	0.12	0.003J	0.087	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	—	
MW-604	12/20/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7/30/1996	ND<0.0003	—	—	—	—	—	—	—	—	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0003	—	—	ND<0.0003	—
	12/17/1996	ND<0.002	ND<0.002	—	0.0036	—	—	ND<0.002	ND<0.002	0.0022	—	<0.0020	ND<0.002	ND<0.002	ND<0.002	ND<0.002	—	ND<0.004	—
	1/22/1998	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	ND<0.01	—	
	8/19/1998	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	1/27/1999	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	7/19/1999	ND<0.1	ND<0.001	—	0.0013	—	—	ND<0.1	ND<0.001	0.0026	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001
	1/11/2000	ND<0.1	ND<0.001	—	0.0082	—	—	ND<0.1	ND<0.001	0.0043	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001
	8/3/2000	ND<0.1	ND<0.001	ND<0.001	0.0011	ND<0.01	ND<0.01	ND<0.1	ND<0.001	0.0056	ND<0.01	ND<0.001							
	2/7/2001	ND<0.5	ND<0.005	ND<0.005	0.025	—	—	ND<0.5	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	0.0068	ND<0.005
	7/24/2001	ND<0.001	ND<0.001	—	0.034	—	—	ND<0.1	ND<0.001	0.0056	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001
	5/8/2002	ND<0.001	ND<0.002	ND<1	0.034	—	—	ND<0.1	ND<0.001	0.0052	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	0.0053	ND<0.001
	5/25/2002	ND<0.1	ND<0.002	1	0.034	—	—	ND<0.1	ND<0.001	0.0067	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	0.0041	ND<0.001
	5/8/2002 DUP	ND<0.1	ND<0.002	ND<1	0.032	—	—	ND<0.1	ND<0.001	0.0052	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	0.0053	ND<0.001
	9/25/2002 DUP	ND<0.1	ND<0.002	ND<1	0.032	—	—	ND<0.1	ND<0.001	0.0068	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	0.0048	ND<0.001
MW-605	12/20/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	—	0.013	ND<0.0003	0.018	—	—	—	ND<0.0003	—	
	12/16/1996	ND<0.001	ND<0.001	—	ND<0.001	—	—	ND<0.001	ND<0.001	ND<0.001	0.011	ND<0.001	2	ND<0.001	ND<0.001	—	ND<0.002	—	
	1/22/1998	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	0.0005	0.014	ND<0.005	0.032	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	8/19/1998	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	0.0005	0.0005	ND<0.005	0.0005	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	1/28/1999	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	0.0005	0.0005	ND<0.005	0.0005	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	7/19/1999	ND<0.1	ND<0.001	—	ND<0.001	—	—	ND<0.1	ND<0.001	0.0001	0.0016	ND<0.001	0.0032	ND<0.001	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001
	1/11/2000	ND<0.1	ND<0.001	—	ND<0.001	—	—	ND<0.1	ND<0.001	0.0001	0.0007	ND<0.001	0.022	ND<0.001	ND<0.001	ND<0.001	—	ND<0.01	ND<0.001
	8/2/2000	ND<0.1	ND<0.001	ND<0.001	ND<0.001	ND<0.01	—	ND<0.1	ND<0.001	0.0001	0.0071	ND<0.001	0.025	ND<0.001	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001
	2/7/2001	ND<0.1	ND<0.001	—	ND<0.001	—	—	ND<0.1	ND<0.001	0.0001	0.026	ND<0.001	0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001
	7/24/2001	ND<0.1	ND<0.001	ND<1	ND<0.001	—	—	ND<0.1	ND<0.001	0.0001	0.019	ND<0.001	0.022	ND<0.001	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001
	5/7/2002	ND<0.1	ND<0.001	ND<0.001	ND<1	ND<0.001	—	ND<0.1	ND<0.001	0.0001	0.013	ND<0.001	0.033	ND<0.001	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001
	6/30/2004	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	—	ND<0.005	—	0.005J	ND<0.005	0.005J	0.24	ND<0.005	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005
MW-606	12/19/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7/31/1996	ND<0.0003	—	—	—	—	—	—	—	—	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0003	ND<0.0003	—	ND<0.0003	—	
	12/16/1996	ND<0.001	ND<0.001	—	ND<0.001	—	—	ND<0.1	ND<0.005	0.0005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	ND<0.002	—	
	1/22/1998	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	0.0005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	8/19/1998	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	0.0005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	1/28/1999	ND<0.005	ND<0.005	—	ND<0.005	—	—	ND<0.1	ND<0.005	0.0005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	7/19/1999	ND<0.1	ND<0.001	—	ND<0.001	—	—	ND<0.1	ND<0.001	0.0001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.0005	ND<0.001	
	1/11/2000	ND<0.1	ND<0.001	ND<0.001	ND<0.001														

TABLE D2-A
HISTORICAL GROUNDWATER DATA
TPH_g, VOC, AND OXYGENATE RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	MC	n-BB	t-BB	n-PB	1-Methyl Naphthalene	2-Methyl Naphthalene	Naphthalene	p-IsoPT	sec-BB	Phenol	PCE	t-1,2-DCE	TCE	1,2,4-TMB	1,3,5-TMB	TOX	VC	CB
	1/27/1999	ND<0.005	ND<0.005	—	0.025	—	—	ND<0.01	ND<0.005	ND<0.005	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	ND<0.01	ND<0.005	
	7/19/1999	ND<0.05	0.0055	—	0.02	—	—	ND<0.05	ND<0.005	0.0052	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	—	ND<0.0025	ND<0.005	
	1/11/2000	ND<0.02	ND<0.002	—	0.0073	—	—	ND<0.02	ND<0.002	0.0033	—	ND<0.002	ND<0.002	ND<0.002	ND<0.002	—	ND<0.001	ND<0.002	
	7/31/2000	ND<0.02	ND<0.002	ND<0.002	0.0038	ND<0.011	ND<0.011	ND<0.01	ND<0.002	0.0041	ND<0.01	ND<0.002	ND<0.002	ND<0.002	ND<0.002	—	0.0011	ND<0.002	
	2/7/2001	ND<0.01	ND<0.001	ND<0.001	0.0013	—	—	ND<0.01	ND<0.001	0.0025	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	0.0055	ND<0.001	
	7/24/2001	ND<0.01	ND<0.001	—	0.0024	—	—	ND<0.01	ND<0.001	0.0033	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.005	ND<0.001	
	5/7/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	—	—	ND<0.01	ND<0.001	0.0037	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.005	ND<0.001	
	9/24/2002	ND<0.01	ND<0.001	ND<1	ND<0.001	—	—	ND<0.01	ND<0.001	0.0036	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.005	ND<0.001	
	5/7/2002DUP	ND<0.01	ND<0.001	ND<1	ND<0.001	—	—	ND<0.01	ND<0.001	0.0037	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.005	ND<0.001	
	9/24/2002DUP	ND<0.01	ND<0.001	ND<1	ND<0.001	—	—	ND<0.01	ND<0.001	0.0035	—	ND<0.001	ND<0.001	ND<0.001	ND<0.001	—	ND<0.005	ND<0.001	
	6/30/2004	ND<0.005	ND<0.005	ND<0.005	0.019	—	—	ND<0.005	—	0.005J	—	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.003J	ND<0.005		
MW-A	2/20/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	ND<0.25		
Abandoned	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
MW-B	2/25/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	ND<0.005		
Abandoned	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
MW-I	2/19/1991	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	ND<0.05		
Abandoned	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
MW-C	3/31/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Abandoned	7/11/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10/5/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/8/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/7/1996	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/17/1996	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
MW-D	3/31/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Abandoned	7/11/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10/5/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/8/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/7/1996	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/17/1996	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
MW-E	3/31/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Abandoned	7/11/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10/5/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	12/8/1995	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	3/7/1996	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	6/17/1996	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

NOTES:

Table reprinted from Versar, Inc., Revised Master Work Plan, CENCO Refining Company, Santa Fe Springs, California, dated January 26, 2000.

All concentrations reported in milligram(s) per liter (mg/l).

Blank = not analyzed

ND< = Not detected above the laboratory reporting limit shown

*Sample was analyzed by both U.S. EPA Methods 8010/8020 and 8240; highest detection value of the two analyses is shown

NS = Not sampled due to well damage, free product in well, or not scheduled for sampling

(A) = U.S. EPA Method 601/6010

(B) = U.S. EPA Method 602/6020

Abbreviations:

TPH_g = Total petroleum hydrocarbons as gasoline (Method 8020)

TPHd = Total petroleum hydrocarbons as diesel (Method 8015)

TRPH = ASTM Method 2887 (unless otherwise indicated)

MTBE = Methyl tert-butyl ether

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

BDCM = Bromodichloromethane

BCM = Bromochloromethane

c-1,2-DCE = cis-1,2-Dichloroethene

CB = Chlorobenzene

1,2-DCB = 1,2-Dichlorobenzene

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethene

1,2-DCP = 1,2-Dichloropropane

Iso-PB = iso-Propylbenzene

MC = Methylene chloride

n-BB = n-Butylbenzene

n-PB = n-Propylbenzene

p-Iso-PT = p-Iso-Propyltoluene

sec-BB = sec-Butylbenzene

PCE = Tetrachloroethene

t-1,2-DCE = trans-1,2-Dichloroethene

TCE = Trichloroethene

1,2,4-TMB = 1,2,4-Trimethylbenzene

1,3,5-TMB = 1,3,5-Trimethylbenzene

TOX = Total halogenated volatile organics (ASTM Method 2885)

VC = Vinyl chloride

t-BB = Tertiary Butylbenzene

TABLE D3-B
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (ARCA05)
FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPHg	Acetone	Benzene	Bromodichloromethane	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromomethane	1,2-Dichlorobenzene
Operational Area 1: Biomfield Property																	
MW-106A	8/2/2006	310	NA	2.6	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	11/9/2006	82	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/9/2007	279	NA	2.1	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	5/9/2007	121	NA	1.5 J	ND<2.0	ND<5.0	14 J	6.7 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	8/9/2007	279	NA	1.6 J	ND<2.0	ND<5.0	2.9 J	0.86 J	ND<5.0	6.47 J	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	11/7/2007	240	NA	1.4 J	ND<2.0	ND<5.0	1.7 J	0.79 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/5/2008	220	NA	1.8 J	ND<2.0	ND<5.0	1.5 J	0.85 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
MW-107A	1/19/2009	220	NA	0.44 J	ND<2.0	ND<5.0	0.7 J	0.7 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	7/21/2006	72	NA	3.1	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	11/8/2006	785	NA	24	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/8/2007	500	NA	60	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	5/10/2007	670	NA	42	ND<2.0	ND<5.0	0.87 J	2.7 J	0.39 J	ND<5.0	ND<2.0	2.5 J	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0
	8/9/2007	1000	NA	81	ND<2.0	ND<5.0	1.5 J	3.8 J	0.48 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0
	11/7/2007	1500	NA	44	ND<2.0	ND<5.0	2.0 J	4.4 J	0.82 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0
MW-203	2/5/2008	2800	NA	18	ND<2.0	ND<5.0	3.5 J	5.5 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	1/19/2009	11	NA	13	ND<2.0	ND<5.0	2.3 J	1.1 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	DUP	1200	NA	12	ND<2.0	ND<5.0	2.1 J	9.0	1.2 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0
	8/2/2008	240	NA	3.1	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	11/9/2008	260	NA	2.5	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/8/2009	150	NA	2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	5/10/2009	170	NA	1.9 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
MW-103	2/7/2007	278	NA	0.88 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	11/7/2007	87	NA	1.7 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/5/2008	87	NA	1.4 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	1/19/2009	65	NA	0.53 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	Operational Area 2: East Tank Farm Area																
MW-103	8/9/2006	350	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	11/8/2006	430	NA	4.1	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	360	NA	3.6	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/20/2007	220	NA	0.51 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	5/9/2007	378	NA	1.3 J	ND<2.0	ND<5.0	1.8 J	3.8 J	0.78 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0
	11/6/2007	880	NA	11	ND<2.0	ND<5.0	3.1 J	5.1	0.84 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0
	10/7/2007	342	ND<10	5.7	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
MW-204	2/1/2006	111	ND<100.0	1.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	8/1/2006	260	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	11/1/2006	81	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/7/2007	368	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	5/8/2007	115	NA	NS	ND<2.0	ND<5.0	NS	NS	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	8/1/2007	53	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/4/2008	37 J	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
W-7	10/6/2006	ND<100	ND<10	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.50	ND<1.0	ND<1.0	ND	ND<5.0	ND<1.0	ND<1.0	ND<1.0	
	2/1/2006	60.8	NA	ND<100.0	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<1.0	ND<1.0	ND<1.0	
	8/4/2006	ND<100	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	1/1/2007	ND<100	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/25/2007	ND<50	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	5/6/2007	31 J	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	8/1/2007	ND<100	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
W-12	1/16/2006	1400	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/7/2007	4600	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	5/1/2007	220	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	8/9/2007	1100	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	11/6/2007	1500	NA	0.37 J	ND<2.0	ND<5.0	1.4 J	1.5 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	2/8/2008	410	NA	0.94 J	ND<2.0	ND<5.0	2.4 J	1.5 J	ND<5.0	ND<2.0	ND<5.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
	1/19/2009	620 ZX	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<2.0	ND<2.0	ND<2.0	
MW-104A	10/7/2005	ND<100	ND<100.0	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<1.0	ND<1.0	ND<1.0	
	2/7/2006	ND<100.0	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<1.0	ND<1.0	ND<1.0	
	5/7/2007	24	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<1.0	ND<1.0	ND<1.0	
	5/8/2007	33 J	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<1.0	ND<1.0	ND<1.0	
	8/8/2007	ND<100	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<1.0	ND<1.0	ND<1.0	
	11/5/2007	ND<100	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<1.0	ND<1.0	ND<1.0	
	2/4/2008	ND<100	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND	ND<5.0	ND<1.0	ND<1.0	ND<1.0	
MW-504	2/16/2006	18000	ND<1000.0	675													

TABLE D2-B
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (ARCADIS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	TPHg	Acetone	Benzene	Bromoform	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromomethane	1,2-Dichlorobenzene		
W-10	11/6/2006	26000	NA	ND<40	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100	ND<100	ND<40	ND<40		
	2/9/2007	28000	NA	8400	ND<200	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<200	ND<200		
	DUP	26000	NA	5100	ND<200	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<40	ND<40		
	5/11/2007	7900	NA	430	ND<4.0	8.4 J	3.4 J	8.8 J	ND<10	ND<10	ND<10	ND<4.0	ND<4.0		
	8/9/2007	5400	NA	590	ND<10	5.7 J	4.8 J	ND<25	ND<25	ND<10	ND<25	ND<10	ND<10		
	DUP	5700	NA	570	ND<10	5.8 J	4.7 J	ND<25	ND<25	ND<10	ND<25	ND<10	ND<10		
	11/5/2007	11200	NA	4700	ND<200	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<200	ND<200		
	DUP	12000	NA	5600	ND<200	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<200	ND<200		
	2/8/2008	28000	NA	7200	ND<200	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<200	ND<200		
	DUP	25000	NA	7600	ND<200	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<200	ND<200		
W-17A	1/17/2009	20000	NA	8100	ND<200	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<200	ND<200		
	DUP	25000	NA	7800	ND<200	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<200	ND<200		
W-17B	2/14/2008	100	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0		
	1/16/2009	78	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0		
	2/1/2008	39 J	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0		
	1/16/2009	38 J	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0		
	2/14/2008	36 J	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0		
W-17C	1/16/2009	29 J	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0		
	Operational Area 4: West Tank Farm Area														
	8/3/2006	2100	NA	ND<10	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0		
	11/5/2006	1800	NA	100	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0		
	2/12/2007	2100	NA	240	ND<8.0	ND<20	ND<20	ND<20	ND<20	ND<8.0	ND<20	ND<8.0	ND<8.0		
	5/11/2007	1100	NA	29	ND<2.0	ND<5.0	1.2 J	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0		
	8/8/2007	2600	NA	31	ND<2.0	ND<5.0	1.6 J	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0		
	11/8/2007	830	NA	62	ND<2.0	ND<5.0	1.2 J	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0		
	10/6/2005	300	NA	ND<10	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0		
	2/21/2006	320	NA	ND<10	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0		
MW-105	2/15/2006	325	NA	ND<100	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	DUP	294	NA	ND<100	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	8/1/2006	320	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	DUP	330	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	11/8/2006	230	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	DUP	220	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	2/20/2007	240	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	DUP	160	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	5/9/2007	150	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	8/7/2007	250	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
MW-201	DUP	250	NA	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	11/5/2007	160	NA	0.43 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	DUP	180	NA	0.35 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	2/20/2008	177	NA	1.7 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	DUP	190	NA	1.5 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	1/15/2009	160	NA	0.85 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	DUP	180	NA	0.71 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	10/7/2008	3400	NA	93	740	ND<5.0	15	16	ND<2.5	ND<5.0	ND<5.0	ND<2.5	ND<5.0		
	2/15/2006	1890	NA	128	ND<5.0	ND<5.0	1.1 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	8/2/2006	1900	NA	73	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
MW-205	11/5/2006	1100	NA	54	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	11/7/2006	1100	NA	54	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	5/5/2007	830	NA	47	ND<2.0	ND<5.0	8.89 J	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0		
	8/8/2007	1300	NA	44	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0		
	11/6/2007	1500	NA	110	ND<2.0	1.6 J	2.2 J	0.30 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	2/7/2008	870	NA	39	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0		
	1/20/2009	1400 ZX	NA	87	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0		
	2/16/2006	55	NA	ND<1.0	ND<1.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<1.0		
	2/15/2006	411	ND<100	35	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	8/2/2006	560	NA	40	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0		
W-8	11/8/2006	360	NA	7.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0		
	2/7/2007	150	NA	24	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0		
	5/9/2007	190	NA	7.4	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0		
	8/5/2007	250	NA	6.8	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0		
	11/5/2007	330	NA	13	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0		
	2/5/2008	260	NA	4.9	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0		
	1/19/2009	380 CP1	NA	150	ND<10	0.60 J	0.60 J	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10		
	10/6/2005	220	NA	0.52	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0		
	2/16/2006	182	NA	ND<10	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	8/4/2006	130	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
W-11	2/16/2006	250	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	2/15/2007	130	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0		
	5/8/2007	118	NA	0.49 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0		
	8/7/2007	178	NA	0.49 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0		
	11/6/2007	160	NA	0.53 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0		
	2/4/2008	160	NA	0.46 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0		
	1/13/2009	120	NA	0.53 J	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0		
	11/12/2005	5200	NA	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0		
	2/9/2007	8000	NA	92	ND<4.0	ND<10	ND<10	ND<10	ND<10	ND<4.0	ND<10	ND<4.0	ND<4.0		

TABLE D2-8
HISTORICAL GROUNDWATER DATA
TPH_g, VOC, AND OXYGENATE RESULTS (ARCADIS)

**FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA**

Well ID	Date	TPHg	Acetone	Benzene	Bromodichloromethane	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Tetrachloride	Chlorobenzenes	Chloroethane	Chloroform	Chloromethane	2-Chlorotoluene	1,2-Dibromo-3-chloropropane	Dibromomethane	1,2-Dichlorobenzene	
MW-502	10/5/2005	15000	ND<1000	900	ND<100	ND<100	ND<100	ND<100	ND<50	ND<100	ND<100	ND<100	ND<100	ND<100	ND<500	ND<100	ND<500	
	2/14/2006	47600	ND<1000	1280	ND<50	32 J	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<100	ND<50	ND<50	
	2/15/2006	25000	NA	200	ND<100	ND<100	ND<100	ND<100	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<20	ND<20	
	11/10/2006	15000	NA	1800	ND<20	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<20	ND<20	
	2/9/2007	15000	NA	2200	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	ND<1000	
	5/1/2007	25000	NA	4000	ND<200	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<200	ND<200	
	6/10/2007	30000	NA	-	3300	ND<100	28 J	ND<250	ND<250	ND<250	ND<100	ND<100	ND<250	ND<250	ND<250	ND<100	ND<100	
	1/18/2007	19000	NA	2100	ND<400	ND<1000	ND<1000	ND<1000	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<500	ND<200	
	2/10/2008	25000	NA	2000	ND<20	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	ND<200	
	10/5/2008	5400	ND<200	1100	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<100	ND<20	
MW-503B	2/16/2006	300	ND<1000	ND<10	ND<5.0	23	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	2/17/2006	3000	NA	100	ND<10	12 J	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	
	1/18/2007	1100	NA	ND<2.0	ND<2.0	23	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	2/8/2007	1400	NA	ND<2.0	ND<2.0	11	8.7	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	5/1/2007	14000	NA	0.68 J	ND<2.0	8.8	6.1	1.4 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	8/9/2007	1900	NA	0.79 J	ND<2.0	8.0	5.8	1.1 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	1/17/2007	1500	NA	0.62 J	ND<2.0	5.2	0.9 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	2/7/2008	180	ND<2.0	ND<2.0	5.4	6.2	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	10/5/2008	100	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	Operational Area 6: Former AST Area at Walker Property																	
W-3A	2/16/2006	300	ND<1000	ND<10	ND<5.0	ND<5.0	23	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	2/17/2006	3000	NA	100	ND<10	12 J	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	
	1/18/2007	1100	NA	ND<2.0	ND<2.0	23	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	2/8/2007	1400	NA	ND<2.0	ND<2.0	11	8.7	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	5/1/2007	14000	NA	0.68 J	ND<2.0	8.8	6.1	1.4 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	8/9/2007	1900	NA	0.79 J	ND<2.0	8.0	5.8	1.1 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	1/17/2007	1500	NA	0.62 J	ND<2.0	5.2	0.9 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	2/7/2008	180	ND<2.0	ND<2.0	5.4	6.2	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	10/5/2008	100	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	Offset Well: Walker Property																	
W-1	10/5/2005	310	20	43	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	
	2/15/2006	264	ND<100	0.32	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	8/3/2006	1100	NA	88	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	1/19/2006	470	NA	100	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	2/8/2007	500	NA	77	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	5/10/2007	890	NA	110	ND<2.0	1.4 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	8/9/2007	1000	NA	100	ND<2.0	1.4 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	1/17/2007	1200	NA	140	0.3 J	3.8 J	5.8	0.9 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	2/7/2008	1000	NA	96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
	1/20/2009	230	NA	15	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
	DUP	220	NA	19	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0
W-4	10/6/2005	350	ND<10	31	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	
	2/15/2006	300	ND<300	0.3	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	8/3/2006	2600	NA	3.5	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	1/19/2006	230	NA	8.1	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	2/8/2007	200	NA	3.1	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	5/1/2007	170	NA	1.5 J	ND<2.0	0.43 J	1.3 J	0.49 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	8/9/2007	280	NA	1.0 J	ND<2.0	0.98 J	2.8 J	0.68 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	1/17/2007	180	NA	1.2 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	2/7/2008	210	NA	4.4	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	1/19/2009	140	NA	3.9	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
EW-1	11/10/2006	4800	NA	85	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	2/9/2007	4100	NA	41	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	5/10/2007	3300	NA	19	ND<4.0	12	25	3.9 J	ND<10	ND<4.0	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	
	8/10/2007	2200	NA	15	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	2/6/2008	4100	NA	73	ND<4.0	18	34	4.7 J	ND<10	ND<4.0	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	
	11/9/2007	260	NA	41	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	2/6/2008	310	NA	49	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	1/21/2009	290	NA	30	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	11/9/2007	37 J	NA	7.4	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	2/6/2008	400	NA	44	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
W-15A	1/10/2008	220	NA	15	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	
	2/6/2008	360	NA	39	ND<2.0	ND<2.0	ND<2.0	ND<2										

TABLE D2-B
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (ARCADIS)

TABLE D2-8
HISTORICAL GROUNDWATER DATA
TPHg, VOC, AND OXYGENATE RESULTS (ARCADIS)
FORMER CEMCO REFINERY

TABLE D2-8
HISTORICAL GROUNDWATER DATA
TPH_g, VOC, AND OXYGENATE RESULTS (ARCADIS)

Well ID	Date	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	c-1,2-Dichloroethene	1-1,2-Dichloroethene	1,2-Dichloropropane	2,2-Dichloropropane	EthyBenzene	Isopropylbenzene	p-isopropyltoluene	Methylene Chloride	Naphthalene	n-Propylbenzene	Tetrachloroethene	
W-10	11/18/2006	ND<40	ND<40	ND<40	ND<40	ND<40	ND<40	ND<40	ND<40	ND<40	ND<40	ND<40	ND<40	ND<10	349	73	ND<40	
	2/20/2007	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	
	DUP	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	
	5/1/2007	ND<40	ND<40	8.2	12.1	ND<10	6.6	ND<40	18	ND<40	100	19	4.6	ND<10	105	35	ND<40	
	DUP	ND<10	ND<10	8.8 J	14 J	ND<25	6.8 J	ND<10	20	ND<10	110	21	5.8 J	ND<25	150	33	ND<10	
	8/9/2007	ND<10	ND<10	8.0 J	ND<10	ND<25	6.4 J	ND<10	25	ND<10	82	18	2.8 J	ND<25	59	22	ND<10	
	DUP	ND<10	ND<10	8.4 J	ND<10	ND<25	7.0 J	ND<10	24	ND<10	79	16	2.8 J	ND<25	57	22	ND<10	
	11/9/2007	ND<200	ND<200	ND<200	ND<200	ND<500	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	
	DUP	ND<200	ND<200	ND<200	ND<200	ND<500	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	
	2/20/2008	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	
W-17A	DUP	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	ND<200	
W-17B	1/16/2009	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0	
W-17C	2/14/2008	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0	
W-17C	1/16/2009	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0	
Operational Area E: West Tank Farm Area																		
MW-101	8/3/2006	ND<2.0	ND<2.0	ND<2.0	ND<2.0	8.4	26	2.4	ND<2.0	ND<2.0	1.6	2.7	ND<2.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0	
	11/9/2006	ND<2.0	ND<2.0	ND<2.0	ND<2.0	8.5	33	2.2	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	ND<2.0	
	2/12/2007	ND<8.0	ND<8.0	ND<8.0	ND<8.0	ND<20	47	ND<8.0	ND<8.0	ND<8.0	ND<8.0	ND<8.0	ND<8.0	ND<8.0	ND<20	ND<8.0	ND<8.0	
	5/1/2007	ND<2.0	ND<2.0	1.5 J	2.8 J	9.2	26	2.6	ND<2.0	ND<2.0	1.3 J	1.4 J	ND<2.0	ND<5.0	0.76 J	0.48 J	0.37 J	0.43 J
	8/8/2007	ND<2.0	ND<2.0	1.0 J	2.4 J	7.1	21	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	10/1/2007	ND<2.0	ND<2.0	1.5 J	2.4 J	5.7	21	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	10/6/2007	ND<1.0	ND<1.0	5.8	0.58	10	10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	
	DUP	ND<1.0	ND<1.0	5.7	0.55	8.6	10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	
	2/15/2008	ND<5.0	ND<5.0	5.7	ND<5.0	7.3	8.8	3.2 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	4.4 J
	DUP	ND<5.0	ND<5.0	5.2	ND<5.0	7.4	8.8	3.0 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	4.0 J
MW-105	8/1/2006	ND<2.0	ND<2.0	3.8	ND<2.0	8.8	26	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	11/9/2006	ND<2.0	ND<2.0	3.8	ND<2.0	8.5	10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	2/7/2007	ND<2.0	ND<2.0	3.8	ND<2.0	12	8.9	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	11/9/2006	ND<2.0	ND<2.0	3.8	ND<2.0	13	8.9	4.1	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	2/7/2007	ND<2.0	ND<2.0	4.2	ND<2.0	12	4.8	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	DUP	ND<2.0	ND<2.0	3.7	ND<2.0	10	12	4.3	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	5/9/2007	ND<2.0	ND<2.0	2.8	ND<2.0	7.5	2.7	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	DUP	ND<2.0	ND<2.0	2.6	ND<2.0	6.3	2.8	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	8/7/2007	ND<2.0	ND<2.0	3.4	ND<2.0	11	11	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	11/5/2007	ND<2.0	ND<2.0	3.1	ND<2.0	14	8.7	5.5	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
MW-201	2/5/2008	ND<2.0	ND<2.0	3.3	ND<2.0	12	9.8	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	1/15/2009	ND<2.0	ND<2.0	2.6	ND<2.0	14	10	6.5	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	DUP	ND<2.0	ND<2.0	2.5	ND<2.0	15	10	3.2	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	10/7/2009	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	10/8/2009	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	
	8/2/2006	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	13	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	11/9/2006	ND<2.0	ND<2.0	5.1	ND<2.0	25	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	2/7/2007	ND<2.0	ND<2.0	3.3	ND<2.0	12	9.8	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	5/9/2007	ND<2.0	ND<2.0	2.6	ND<2.0	14	10	6.5	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	8/8/2007	ND<2.0	ND<2.0	3.7 J	ND<2.0	31	28	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
MW-205	10/6/2005	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	4.2	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<5.0	ND<1.0	
	2/15/2006	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<5.0	19	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<5.0	ND<5.0	ND<3.0	
	8/2/2006	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	35	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	11/8/2006	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	48	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	5/5/2007	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	40	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	8/8/2007	ND<2.0	ND<2.0	1.2 J	ND<2.0	29	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	11/6/2007	ND<2.0	ND<2.0	1.8 J	ND<2.0	23	0.70 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	2/5/2008	ND<2.0	ND<2.0	2.9	ND<2.0	14	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	11/19/2008	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<5.0	3.2 J	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<5.0	ND<5.0	ND<4.0	
	2/11/2009	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<5.0	15	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<4.0	ND<5.0	ND<5.0	ND<4.0	
W-8	5/6/2007	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	11/6/2007	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	2/4/2008	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	11/1/2008	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	2/5/2009	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<2.0	
	5/6/2007	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<												

TABLE D2-B
HISTORICAL GROUNDWATER DATA
TPHs, VOC, AND OXYGENATE RESULTS (ARCADIS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

TABLE D2-8
HISTORICAL GROUNDWATER DATA
TPH_G, VOC, AND OXYGENATE RESULTS (ARCADIS)

TABLE D2-B
HISTORICAL GROUNDWATER DATA
TPH_g, VOC, AND OXYGENATE RESULTS (ARCADIS)

FORMER CENCO REFINERY
 SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	Toluene	1,1,2-Trichloroethane	Trichloroethylene	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	Vinyl Chloride	p-m-Xylenes	c-Xylenes	Total Xylenes	Diisopropyl Ether (DPE)	Tert-Butyl Methyl Ether (TAME)	Methyl tert-Butyl Ether (MTBE)	Tert-Butyl Alcohol (TBA)	1,4-Dioxane
Operational Area 1: Bloomfield Property																
MW-106A	8/2/2006	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	10	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	1/1/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	7.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/8/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	13	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	0.61
	5/1/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	7.8	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	6/9/2007	ND<2.0	ND<2.0	0.45 J	ND<5.0	ND<10	ND<2.0	ND<2.0	12	ND<2.0	ND<4.0	0.54 J	ND<5.0	ND<5.0	19	NA
	11/7/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	9.8	ND<2.0	ND<4.0	0.58 J	ND<5.0	ND<5.0	20 J	NA
	2/5/2008	ND<2.0	ND<2.0	0.29 J	ND<5.0	ND<10	ND<2.0	ND<2.0	10	ND<2.0	ND<4.0	0.62 J	ND<5.0	ND<5.0	18 J	NA
	11/1/2008	ND<2.0	ND<2.0	0.3 J	ND<5.0	ND<10	ND<2.0	ND<2.0	6.3	ND<2.0	ND<4.0	0.31 J	ND<5.0	ND<5.0	17 J	NA
	8/2/2006	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	3.4	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	1/1/2006	ND<2.0	ND<2.0	2.5	ND<5.0	ND<10	ND<2.0	ND<2.0	9.1	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
MW-107A	2/8/2007	ND<2.0	ND<2.0	3.9	ND<5.0	ND<10	ND<2.0	ND<2.0	35	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	0.48
	5/10/2007	1.6 J	ND<2.0	3.5	ND<5.0	ND<10	ND<2.0	ND<2.0	2.9 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	8/5/2007	2.0	ND<2.0	4.8	ND<5.0	ND<10	ND<2.0	ND<2.0	2.2 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	1/1/2008	ND<2.0	ND<2.0	3.7	ND<5.0	ND<10	ND<2.0	ND<2.0	4.4 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	3/25/2008	3.8	ND<2.0	3.2	ND<5.0	ND<10	ND<2.0	ND<2.0	5.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	37 J
	1/1/2009	1.9 J	ND<2.0	2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	2.9 J	ND<2.0	ND<4.0	0.43 J	ND<5.0	ND<5.0	68	NA
	DU/P	1.9 J	ND<2.0	2.1	ND<5.0	ND<10	ND<2.0	ND<2.0	1.8 J	ND<2.0	ND<4.0	0.38 J	ND<5.0	ND<5.0	65	NA
	8/2/2006	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	1	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	1/1/2006	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/8/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	8.7	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	1.8
MW-203	5/10/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	7.8	ND<2.0	ND<4.0	0.41 J	ND<5.0	ND<5.0	28 J	NA
	8/9/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	6.5	ND<2.0	ND<4.0	0.47 J	ND<5.0	ND<5.0	27 J	NA
	11/7/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	8.0	ND<2.0	ND<4.0	0.47 J	ND<5.0	ND<5.0	69 J	NA
	2/5/2008	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	8.7	ND<2.0	ND<4.0	0.47 J	ND<5.0	ND<5.0	63 J	NA
	1/19/2009	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	7.8	ND<2.0	ND<4.0	0.58 J	ND<5.0	ND<5.0	40 J	NA
	Operational Area 2: East Tank Farm Area															
MW-103	8/3/2006	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	71	200
	1/1/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	41	NA
	2/8/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	26	190
	5/8/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	85	NA
	8/8/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	14	110
	11/6/2007	0.49 J	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.39 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	20	160
	1/9/2008	ND<1.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	2.3	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/15/2008	ND<3.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	1.2	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	8/4/2008	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	14	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	1/1/2009	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	8.1	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	87	NA
MW-204	2/7/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	25	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	NS	NS	NS	NS	NS	NS	NS	NS	18	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	NS	NS	NS	NS	NS	NS	NS	NS	14	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	1/16/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.65 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/4/2008	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.38 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	10/6/2006	ND<1.0	ND<1.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/10/2006	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	1.1 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	8/4/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	1/11/2006	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/9/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	2.2	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
W-7	5/8/2007	0.45 J	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	1.44 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	8/10/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	11/6/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/4/2008	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	1/13/2009	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/17/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	7/17/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/9/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	38	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	5/11/2007	7.2 J	ND<40	ND<40	ND<100	ND<200	ND<10	ND<100	130	ND<200	ND<100	11.1 J	ND<100	ND<100	ND<100	NA
	8/10/2007	6.8 J	ND<20	ND<20	ND<50	ND<100	ND<100	ND<20	85	ND<20	ND<40	ND<50	ND<50	ND<50	ND<500	NA
W-12	11/8/2007	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.85 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/8/2008	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.47 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	1/20/2009	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	2.4 J	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/15/2005	76	ND<2.0	ND<50.0	ND<50.0	ND<100	ND<2.0	ND<2.0	152	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	8/1/2006	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	88	ND<2.0	ND<4.0	ND<5.0	ND<5.0			

TABLE D3-B
HISTORICAL GROUNDWATER DATA
TPHg VOC, AND OXYGENATE RESULTS (ARCADIS)
FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	Toluene	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	p-m-Xylenes	<i>o</i> -Xylene	Total Xylenes	Dilisopropyl Ether (DPE)	Tert-Amyl Methyl Ether (TAME)	Methyl tert-Butyl Ether (MTBE)	Tert-Butyl Alcohol (TBA)	1,4-Dioxane		
W-10	11/26/2006	ND<40	ND<40	ND<100	ND<200	360	118	ND<100	2100	620	2920	ND<100	ND<100	ND<100	ND<1000	ND<1000	NA		
	2/29/2007	2200	ND<200	ND<200	ND<500	ND<1000	280	ND<200	ND<500	2200	710	2910	ND<500	ND<500	ND<500	ND<5000	8.4		
	DUP	1600	ND<200	ND<200	ND<500	ND<1000	260	ND<200	ND<500	1800	578	2370	ND<500	ND<500	ND<500	ND<5000	7.7		
	5/11/2007	140	ND<4.0	ND<10	ND<10	ND<20	130	48	3.8 J	480	132	610	ND<10	ND<10	ND<10	ND<1000	NA		
	8/9/2007	10	ND<10	ND<10	ND<10	ND<10	120	12	1.2 J	120	35	155	ND<10	ND<10	ND<10	ND<1000	NA		
	8/9/2007	29	ND<10	ND<10	ND<10	ND<10	90	33	3.6 J	330	49	378	ND<25	ND<25	ND<25	ND<25	84 J	NA	
	DUP	17	ND<10	ND<10	ND<10	ND<10	89	32	4.9 J	320	43	363	ND<25	ND<25	ND<25	ND<25	71 J	NA	
	11/9/2007	460	ND<200	ND<200	ND<500	ND<1000	190 J	55 J	ND<500	1300	180 J	1400	ND<500	ND<500	ND<500	ND<5000	NA		
	DUP	620	ND<200	ND<200	ND<500	ND<1000	220	68 J	ND<500	1500	240	1740	ND<500	ND<500	ND<500	ND<5000	NA		
	2/6/2008	280	ND<200	ND<200	ND<500	ND<1000	140 J	38 J	ND<500	1300	190 J	1490	ND<500	ND<500	ND<500	ND<5000	NA		
	DUP	310	ND<200	ND<200	ND<500	ND<1000	150 J	42 J	ND<500	1400	200	1600	ND<500	ND<500	ND<500	ND<5000	NA		
W-17A	1/2/2009	73 J	ND<200	ND<200	ND<500	ND<1000	230	43 J	ND<500	1400	ND<200	1400	ND<500	ND<500	ND<500	ND<5000	NA		
	1/2/2009	83 J	ND<200	ND<200	ND<500	ND<1000	220	43 J	ND<500	1500	1200	1500	ND<500	ND<500	ND<500	ND<5000	NA		
	3/1/2009	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	149	NA	
	1/1/2009	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	54	NA	
	W-17B	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	39 J	NA	
W-17C	1/2/2008	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	18 J	NA	
	1/2/2009	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	23 J	NA	
MW-101	8/2/2006	ND<1.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	1/1/2006	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	2/12/2007	ND<8.0	ND<200	ND<5.0	ND<20	ND<40	ND<8.0	ND<20	ND<8.0	ND<20	ND<8.0	ND<20	ND<8.0	ND<20	ND<20	ND<20	72	2.2	
	5/11/2007	8.47 J	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	8/8/2007	0.48 J	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	11/8/2007	0.90 J	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	10/6/2005	ND<1.0	ND<1.0	ND<10	ND<5.0	ND<10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	25	NA
	DUP	ND<1.0	ND<1.0	ND<10	ND<5.0	ND<10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	31	NA
	2/1/2006	ND<1.0	ND<1.0	ND<10	ND<5.0	ND<10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	27	NA
	DUP	ND<1.0	ND<1.0	ND<10	ND<5.0	ND<10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	NA	
	8/1/2006	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	DUP	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
MW-105	10/7/2005	37	ND<5.0	ND<25	33	16	ND<2.5	73	18	91	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
	2/15/2006	2.5 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	1.2 J	ND<5.0	6.3	ND<5.0	6.3	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	29	NA	
	8/2/2006	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	1/1/2007	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	DUP	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	5/9/2007	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	8/7/2007	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	DUP	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	11/9/2007	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	DUP	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	1/8/2008	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
MW-201	10/7/2005	37	ND<5.0	ND<25	33	16	ND<2.5	73	18	91	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
	2/15/2006	1.8 J	ND<5.0	ND<5.0	ND<5.0	ND<5.0	1.2 J	ND<5.0	6.3	ND<5.0	6.3	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	29	NA	
	8/2/2006	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	1/1/2007	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	DUP	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	5/9/2007	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	8/8/2007	0.75 J	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	11/6/2007	3.9 J	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	2/7/2008	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	DUP	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	10/5/2005	ND<1.0	ND<1.0	ND<10	ND<5.0	ND<10	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	NA	
W-8	2/16/2006	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	8/4/2006	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	1/1/2007	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	
	DUP	ND<2.0	ND<2.0	ND<5.0	ND<10</														

TABLE D3-B
HISTORICAL GROUNDWATER DATA
TPH, VOC, AND OXYGENATE RESULTS (ARCADIS)
FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	Toluene	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	p-Xylene	o-Xylene	Total Xylenes	Dibutyl Ether (DPE)	Tert-Amyl Methyl Ether (TAME)	Methyl tert-Butyl Ether (MTBE)	Tert-Butyl Alcohol (TBA)	1,4-Dioxane
MW-502	10/05/2005	ND<100	ND<100	ND<100	ND<1000	ND<500	ND<100	119	ND<50	110	ND<100	110	ND<200	ND<200	15000	ND<1000	NA
	2/14/2006	32 J	ND<5.0	ND<50	ND<5.0	ND<5.0	ND<5.0	86	ND<50	182	ND<50.0	182	ND<10.0	ND<10.0	29300	ND<100.0	NA
	8/4/2006	38	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	160	2.0	730	ND<50.0	730	ND<5.0	ND<5.0	780	ND<100	NA
	11/19/2006	51	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	118	240	ND<5.0	ND<2.0	260	ND<5.0	6.5	11000	ND<500	NA
	12/1/2006	ND<100	ND<100	ND<100	ND<1000	ND<400	ND<400	ND<1000	ND<400	ND<400	ND<800	ND<1000	ND<1000	ND<1000	2300	ND<10000	NA
	5/1/2007	58 J	ND<200	ND<200	ND<500	ND<1000	ND<1000	400	ND<500	720	ND<200	720	ND<500	ND<500	29000	ND<5000	NA
	8/19/2007	50 J	ND<100	ND<100	ND<250	ND<500	ND<1000	200	ND<250	480	ND<100	480	ND<250	ND<250	34000	610 J	NA
	11/8/2007	ND<400	ND<400	ND<400	ND<1000	ND<2000	50 J	100 J	140 J	ND<400	ND<800	ND<1000	ND<1000	ND<1000	16000	ND<10000	NA
	2/1/2008	52 J	ND<200	ND<200	ND<500	ND<1000	ND<1000	30 J	ND<500	120 J	ND<200	120 J	ND<500	ND<500	27000	ND<5000	NA
	10/1/2008	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<100	ND<100	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	NA
MW-503B	2/14/2006	ND>50.0	ND>50.0	ND>5.0	ND>50.0	ND>50.0	ND>50.0	ND>50.0	ND>50.0	ND>50.0	ND>250.0	ND>50.0	ND>10.0	ND>10.0	ND>10.0	ND>100.0	NA
	8/4/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	22	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	7.8	ND<50	NA
	11/19/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/5/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	7.8
	5/1/2007	0.58 J	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	0.81 J	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	8/19/2007	0.82 J	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	11/8/2007	3.1 J	ND<8.0	ND<8.0	ND<8.0	ND<20	ND<40	ND<8.0	ND<8.0	ND<8.0	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	NA
	2/1/2008	ND<10	ND<10	ND<10	ND<25	ND<50	ND<10	ND<2.0	4.2 J	25	ND<2.0	38 J	ND<25	ND<25	ND<25	ND<25	NA
	12/21/2009	14	ND<10	ND<10	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA
	Operational Area E: Former AST Area at Walker Property																
W-3A	2/11/2006	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	18	16	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<1.0	6.2	16	NA
	8/3/2006	ND<2.0	ND<2.0	ND<2.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	11/5/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/20/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	1.8
	5/12/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	2.3	ND<2.0	3.6	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	8/9/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	2.0 J	ND<2.0	2.3	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	11/7/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.64 J	0.67 J	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/7/2008	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	12/21/2009	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	On-Site Well: Walker Property																
W-1	10/6/2005	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	7.1	ND<1.0	ND<1.0	ND<2.0	ND<2.0	ND<2.0	25	34	NA
	2/15/2006	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	3.3 J	ND<5.0	ND<5.0	ND<1.0	ND<1.0	ND<1.0	22	37	NA
	8/3/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	100	NA
	11/5/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	11	NA
	2/20/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	1.8	NA
	5/10/2007	0.57 J	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	8/19/2007	0.07 J	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	11/7/2007	1.8 J	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.38 J	2.1	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA
	2/7/2008	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	31	NA
	12/21/2009	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	23 J	NA
W-4	DUP	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	3.3 J	NA
	10/6/2005	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<2.0	ND<2.0	47	NA
	2/15/2006	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<1.0	ND<1.0	32	NA
	8/3/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	11/5/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/20/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	5/10/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	8/19/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	11/7/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/7/2008	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
EW-1	DUP	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	11/10/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	6.9	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/9/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	5.1	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	5/10/2007	1.5 J	ND<4.0	ND<10	ND<20	ND<5.0	ND<10	ND<2.0	1.4 J	ND<4.0	ND<4.0	41 J	ND<10	ND<10	17 J	NA	
	8/10/2007	2.3	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	1.2 J	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	11/7/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	2/7/2008	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.48 J	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA
	5/10/2008	1.9 J	ND<4.0	ND<10	ND<20	ND<5.0	ND<10	ND<2.0	2.8 J	ND<4.0	ND<4.0	41 J	ND<10	ND<10			

TABLE D2-B
HISTORICAL GROUNDWATER DATA
TPH_g, VOC, AND OXYGENATE RESULTS (ARCADIS)
FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Well ID	Date	Toluene	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	p-m-Xylenes	o-Xylene	Total Xylenes	Dibisopropyl Ether (DPE)	Tert-Amyl Methyl Ether (TAME)	Methyl tert-Butyl Ether (MTBE)	Tert-Butyl Alcohol (TBA)	1,4-Dioxane	
Off-Site Wells: Metropolitan State Hospital																		
MW-603	10/9/2005	ND<1.0	ND<1.0	150	ND<10	ND<5.0	ND<1.0	ND<1.0	1.6	ND<1.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<10	NA	
	2/14/2006	ND<5.0	ND<5.0	110	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	1.7	ND<50	NA	
	8/17/2006	ND<2.0	ND<2.0	120	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
	11/1/2006	ND<1.0	ND<1.0	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<1.0	ND<10	ND<10	NA	
	2/6/2007	ND<2.0	ND<2.0	92	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<5.0	ND<50	5.8	
	5/8/2007	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	8/7/2007	ND<2.0	ND<2.0	110	1.6 J	ND<10	ND<2.0	ND<2.0	0.78 J	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	11/1/2007	ND<2.0	ND<2.0	110	1.9 J	ND<10	ND<2.0	ND<2.0	1.2 J	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	2/4/2008	ND<2.0	ND<2.0	110	1.4 J	ND<10	ND<2.0	ND<2.0	ND<1.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	11/1/2008	ND<2.0	ND<2.0	78	0.61 J	ND<10	ND<2.0	ND<2.0	1.3 J	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
MW-604	11/7/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	15	65	NA	
	2/7/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	20	60	ND<0.49	
	5/8/2007	0.38 J	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.48 J	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	18	57	NA	
	8/7/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.23 J	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	18	44	NA	
	11/5/2007	0.38 J	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	0.43 J	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	22	58	NA	
	10/5/2008	ND<1.0	ND<1.0	ND<10	ND<10	ND<10	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	ND<2.0	ND<2.0	ND<2.0	ND<10	ND<10	NA	
	DUP	ND<1.0	ND<1.0	ND<10	ND<10	ND<5.0	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	ND<2.0	ND<2.0	ND<2.0	ND<10	ND<10	NA	
MW-605	2/14/2006	ND<5.0	ND<5.0	21	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<1.0	ND<10	NA	
	DUP	ND<5.0	ND<5.0	17	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<1.0	ND<10	NA	
	8/1/2006	ND<2.0	ND<2.0	26	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	DUP	ND<2.0	ND<2.0	26	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	11/7/2006	ND<2.0	ND<2.0	28	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	DUP	ND<2.0	ND<2.0	35	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	1.5		
	5/8/2007	ND<2.0	ND<2.0	33	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	DUP	ND<2.0	ND<2.0	35	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	1.6		
	8/7/2007	ND<2.0	ND<2.0	35	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	DUP	ND<2.0	ND<2.0	40	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
MW-606	6/1/2006	ND<1.0	ND<1.0	ND<10	ND<10	ND<10	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	ND<2.0	ND<2.0	ND<2.0	ND<10	ND<10	NA	
	2/14/2006	ND<1.0	ND<1.0	ND<10	ND<10	ND<10	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	ND<2.0	ND<2.0	ND<2.0	ND<10	ND<10	NA	
	11/7/2006	8.7	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	2/6/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	ND<0.48		
	5/8/2007	ND<2.0	ND<2.0	3.5 J	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	8/7/2007	ND<2.0	ND<2.0	4.8 J	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	11/5/2007	ND<2.0	ND<2.0	4.8 J	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	2/4/2008	ND<2.0	ND<2.0	21	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	DUP	ND<2.0	ND<2.0	21	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	10/5/2008	ND<1.0	ND<1.0	ND<10	ND<10	ND<10	ND<1.0	ND<1.0	ND<5.0	ND<1.0	ND<1.0	ND<2.0	ND<2.0	ND<2.0	ND<10	ND<10	NA	
MW-607	2/14/2006	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<1.0	ND<10	NA	
	8/1/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	11/7/2006	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	2/6/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	5/8/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	8/7/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	11/5/2007	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	2/4/2008	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	11/5/2008	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	2/12/2008	ND<2.0	ND<2.0	15	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
	1/3/2009	ND<2.0	ND<2.0	2.6	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
W-14A	2/11/2008	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
W-14B	1/1/2009	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
W-14C	1/1/2009	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
W-14D	2/1/2009	ND<2.0	ND<2.0	44	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
W-14E	1/1/2009	ND<2.0	ND<2.0	30	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	NA		
W-15A	2/1/2008	4.8 J	ND<2.0	ND<20	ND<50	ND<100	ND<20	ND<20	ND<50	11 J	ND<20	11 J	ND<50	ND<50	850	120 J	NA	
W-14F	1/1/2009	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	190	170	NA	
W-15B	2/11/2008	ND<2.0	ND<2.0	ND<2.0	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	ND<2.0	ND<2.0	ND<4.0	ND<5.0	ND<5.0	ND<50	11 J	NA	
W-14G	1/1/2009	ND<2.0	ND<2.0	8.57 J	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	8.5 J	ND<2.0	8.5 J	ND<4.0	ND<5.0	ND<5.0	ND<50	110	NA
W-15C	2/11/2008	ND<2.0	ND<2.0	8.57 J	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	8.34 J	ND<2.0	8.34 J	ND<4.0	ND<5.0	ND<5.0	ND<50	12 J	NA
W-15D	2/11/2008	ND<2.0	ND<2.0	3.2	ND<5.0	ND<10	ND<2.0	ND<2.0	ND<5.0	9.96 J	ND<2.0	9.96 J	ND<4.0	ND<5.0	ND<5.0	ND<50	27 J	NA
W-15E	1/1/2009																	

TABLE D3-A
HISTORICAL GROUNDWATER DATA
INTRINSIC BIOREMEDIAL PARAMETER RESULTS (PREVIOUS CONSULTANTS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

MONITORING WELL	DATE	CFU/ML	MPN/100	mg/L	mg/L	mg/L	mg/L	mg/L
MW-104A	7/22/1999	520	ND	NS	0.2	851	ND<0.050	45
	1/13/2000	ND	ND	0.322	0.88	849	ND<0.10	35
	8/3/2000	640	11	NS	0.93	798	ND<0.10	59
	2/7/2001	4400	ND<1	0.289	0.2	780	ND<0.10	98
	5/7/2002	NS	NS	0.257	3	720	ND<0.10	150
	9/24/2002	NS	NS	0.229	0.22	650	ND<0.10	250
MW-205	7/22/1999	100	ND	NS	0.5	648	ND<0.050	249
	1/11/2000	40	ND	2.24	0.95	771	ND<0.10	35
	8/3/2000	2200	36	NS	ND<0.10	794	ND<0.10	51
	2/7/2001	5600	ND<1	0.033	ND<0.10	740	ND<0.10	116
	5/8/2002	NS	NS	0.228	ND<0.10	610	ND<0.10	360
	9/23/2002	NS	NS	1.39	0.19	780	ND<0.10	64
MW-502	7/23/1999	28000	ND	NS	5.5	808	ND<0.050	ND<2
	1/13/2000	14000	ND	15.4	1.4	828	ND<0.10	4
	8/2/2000	10	ND<1	NS	0.85	834	ND<0.10	ND<2
	2/7/2001	24000	ND<1	0.984	0.7	840	ND<0.10	2
	5/9/2002	NS	NS	7.05	0.75	830	ND<0.10	ND<1.0
	9/23/2002	NS	NS	5.83	ND<0.10	850	ND<0.10	ND<1.0
MW-605	7/20/1999	40	ND	NS	ND<0.10	487	4.13	200
	1/11/2000	18	ND	NS	ND<0.10	486	5.2	181
	8/2/2000	ND<1	ND<1	NS	ND<0.10	530	5.8	203
	2/7/2001	1600	ND<1	NS	ND<0.10	510	7	164
	5/7/2002	NS	NS	ND<0.0010	ND<0.10	480	8.4	220
	9/24/2002	NS	NS	ND<0.0010	ND<0.10	490	8.3	220
MW-606	7/20/1999	72	ND	NS	ND<0.10	400	7.94	177
	1/11/2000	2.0	ND	NS	ND<0.10	390	8.6	238
	8/2/2000	ND<1	ND<1	NS	ND<0.10	406	8.8	260
	2/7/2001	3300	ND<1	ND<0.001	ND<0.10	390	9	261
	5/7/2002	NS	NS	ND<0.0010	ND<0.10	400	8.4	250
	9/24/2002	NS	NS	ND<0.0010	ND<0.10	390	8.6	280

NOTES:

ND = Not detected above the laboratory reporting limit shown

cfu/ml = colony forming units per milliliter

MPN/100 = most probable number of bacteria per 100 milliliters of sample

mg/L = milligram(s) per liter

NS = not sampled

ND = bacteria were not detected

Duplicate sample data are shown in parentheses

Data table created from the following reports: Semi-Annual Groundwater Monitoring Report: February 2001 Monitoring Event, by Versar, Inc., dated June 6, 2001, and

Semi-Annual Groundwater Monitoring Report: September 2002 Monitoring Event, by TRC, dated December 9, 2002.

TABLE D3-B
HISTORICAL GROUNDWATER DATA
INTRINSIC BIOREMEDIAL PARAMETER RESULTS (ARCADIS)

FORMER CENCO REFINERY
SANTA FE SPRINGS, CALIFORNIA

Monitoring Well	Date	Method	Sample	Results	Method	Sample
MW-104A	10/7/2005	0.0695	ND<0.10	89	570	ND<0.10
	2/15/2006	0.059	ND<0.44	56.3	803	ND<0.10
	8/1/2006	Well temporarily capped/covered below ground surface for temporary roadway. Well reconstructed in January 2007.				
	11/7/2006	Well temporarily capped/covered below ground surface for temporary roadway. Well reconstructed in January 2007.				
	2/7/2007	ND<0.050	1.2	57	500	ND<0.10
	5/8/2007	ND<0.050	ND<0.11	30	810	0.10
	8/8/2007	0.015	ND<0.11	72	820	0.20
	11/5/2007	0.018	ND<0.11	120	720	0.10
	2/4/2008	0.026	ND<0.22	160	750	ND<0.10
MW-205	1/16/2009	0.0015	0.42	150	630	0.10
	10/6/2005	3.330	ND<0.10	63	3600	0.44
	2/15/2006	1.036	ND<0.44	341	630	ND<0.10
	8/2/2006	8.1	ND<0.15	430	610	0.30
	11/8/2006	1.5	ND<0.11	470	530	0.60
	2/7/2007	0.22	ND<0.11	420	620	ND<0.1
	5/9/2007	0.25	ND<0.11	430	540	0.20
	8/8/2007	1.5	ND<0.11	410	580	2.0
	11/6/2007	1.0	ND<0.11	270	650	2.0
MW-503B	2/5/2008	0.56	ND<0.11	200	730	0.1
	1/19/2009	0.085	ND<0.11	290	620	2.0
	10/5/2005	1.380	ND<0.10	24	730	ND<0.10
	2/14/2006	0.581	ND<0.44	36.5	713	ND<0.10
	8/4/2006	1.2	ND<0.15	58	700	0.20
	11/10/2006	1.7	ND<0.11	66	560	0.10
	2/9/2007	0.62	ND<0.11	150	680	ND<0.10
	5/11/2007	0.25	ND<0.11	170	660	0.20
	8/10/2007	0.85	ND<0.11	52	680	0.20
MW-605	11/8/2007	1.3	ND<0.11	36	790	0.50
	2/11/2008	1.2	ND<0.11	78	680	0.40
	1/21/2009	0.16	ND<0.11	4.4	700	1.0
	10/5/2005	0.00125 (ND<0.00100)	8.3 (8.3)	180 (170)	500 (500)	ND<0.10 (ND<0.10)
	2/14/2006	ND<0.005 (ND<0.005)	38.2 (37.8)	182 (184)	450 (460)	ND<0.10 (ND<0.10)
	8/1/2006	ND<0.050 (ND<0.050)	8.6 (8.6)	230 (230)	460 (460)	ND<0.10 (ND<0.10)
	11/7/2006	ND<0.050 (ND<0.050)	7.2 (6.6)	200 (200)	460 (470)	ND<0.10 (ND<0.10)
	2/6/2007	ND<0.050 (ND<0.050)	6.5 (6.5)	210 (210)	470 (480)	ND<0.10 (ND<0.10)
	5/8/2007	ND<0.050 (ND<0.050)	5.5 (5.5)	220 (220)	430 (440)	ND<0.10 (ND<0.10)
MW-606	8/7/2007	ND<0.0010 (ND<0.0010)	6.6 (6.5)	190 (190)	420 (440)	ND<0.10 (ND<0.10)
	11/5/2007	0.0026 (ND<0.0010)	5.9 (6.0)	190 (190)	420 (420)	0.10 (0.10)
	2/4/2008	ND<0.0010 (0.0013)	6.5 (6.7)	190 (210)	380 (430)	ND<0.10 (ND<0.10)
	10/5/2005	0.178	3.0	170	540	ND<0.10
	2/14/2006	ND<0.005	34.0	334	400	ND<0.10
	8/1/2006	ND<0.050	7.8	340	370	ND<0.10
	11/7/2006	ND<0.050	7.9	280	400	ND<0.10
	2/6/2007	ND<0.050	9.3	300	370	ND<0.10
	5/8/2007	ND<0.050	8.1	260	360	ND<0.10
	8/7/2007	0.0024	6.6	240	400	ND<0.10
	11/5/2007	0.00056 J	2.1	170	380	ND<0.10
	2/4/2008	ND<0.0010	0.7	160	370	ND<0.10
	1/13/2009	ND<0.0010	2.9	210	380	ND<0.10

NOTES:

ND< = Not detected above the laboratory reporting limit shown

mg/L = milligram(s) per liter

NS = not sampled

J = estimated concentration below reporting limit

Duplicate sample data are shown in parentheses